

THE ANXIETY OF EVOLUTION: BIOLOGICAL AND CULTURAL ADAPTATION FROM
MARCEL PROUST TO PETER GREENAWAY

Tomas Elliott

A DISSERTATION

in

Comparative Literature and Literary Theory

Presented to the Faculties of the University of Pennsylvania

in

Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

2021

Supervisor of Dissertation

Rebecca Bushnell, School of Arts and Sciences Board of Advisors Emerita Professor of English

Graduate Group Chairperson

Emily Wilson, Professor of Classical Studies and Graduate Chair of Comparative Literature

Dissertation Committee

Timothy Corrigan, Emeritus Professor of Cinema and Media Studies, English, and History of Art

Liliane Weissberg, Christopher H. Browne Distinguished Professor in the School of Arts and

Sciences

ACKNOWLEDGMENT

It is, of course, difficult to sum up in a few short words the huge debt of gratitude that this dissertation owes to so many people. I am grateful first and foremost to Rebecca Bushnell, whose unparalleled generosity of time, intellectual energy, creative thinking, and emotional support I can never hope to repay. It was she who first taught me to read the language of flowers, and it has been a true privilege to think with her about the weird and wonderful crossovers between nature and art.

Thank you to my committee: Tim Corrigan, in whose graduate seminar I first wrote an analysis of *Adaptation*; any ability I have to write about cinema and media I owe largely to him. Liliane Weissberg, who took me under her wing with open-hearted kindness; her nurturing of my intellectual curiosities and my academic development has been a true blessing over the years. To Emily Wilson, who has seen this project through from its incoherent beginning to its hopefully less incoherent ending; not only has she steered both me and many others through the trials and tribulations of graduate school, but she has also inspired me to be a far more rigorous scholar. I am grateful to all.

Thank you to JoAnne Dubil, who welcomed me into the Comp Lit office so many years ago and who has been such a steady help to me, a stranger in a strange land, throughout my time at Penn. To my incredible Comp Lit community: Cory Knudson, with whom all the ideas for this dissertation were first scribbled down on napkins at New Deck—if there are any good ones in here then they belong to him; Martin Premoli, who makes me want to be not just a better student but a better human being; Augusta Irele, who inspired me when I first visited Penn and has gone on inspiring me ever since; Helen Stuhr-Rommereim, whose only flaw is that she won't be moving to England; Nancy Roane, whose fiercely sharp mind is only tempered by her intellectual

and material generosity; Adam Sax, who traded Oxford for Philly with me and brought joy and love to both. To my wider intellectual community at Penn, particularly the contributors to the Intensive Reading Group, whose generous approach to academic work I am constantly striving to emulate.

To my Mum and Dad, who have supported me all the way through this project and who have always encouraged my intellectual endeavors. Dad, thank you for the privilege of the education you gave me and for your ongoing support across many a zoom call and country walk. Mum, thank you for always encouraging my academic curiosity and for being my first teacher and reader. Thank you to my step mum, Linda, whose kindness knows no bounds, and to my wonderful stepsisters, Abby and Elly, who have put up with the purgatory of my literary musings for far longer than anyone deserves. Thank you to Steve, Ollie, Nick, and Lydia, for all of your support and kindness over the course of many years.

Thank you to all of my friends who have housed me, fed me, watered me, laughed and cried with me across my twin homes in England and the United States. Without your generous emotional and material support, none of my writing would be possible. Thank you to Michael McKinley and Nancy Bell, as well as to Rose, Zeus, and Harry, who opened their hearts and home to me in New York and who have taught me more about the hard work and rich rewards of writing than anyone else. To my old friends from the old world, thank you for offering so many words of encouragement in so many pubs: Ellie Armstrong, Andy Butler, Adam Carter, Nick Fanthorpe, Clem Faulkner, George Ferguson, Maddie Fisher, Laura Grierson, Charlie Hirst, Ellie Hudson, Conor Kennedy, Mishia Nannett, Richard Porteous, Alex Priestley, Emily Walport, and Fiona Walport. To my newer friends from the new world, thank you for welcoming me into your

lives and for continuing to support me now from afar: Melissa Adams, Andrew Gunn, Eric Heidhausen, Katya Heidhausen, Natalie Kauppi, Larry Klein, and Jen Klein.

This dissertation is dedicated to Emma, who has endured the situational extremes of a long-distance relationship and a Covid-enforced lockdown in supporting me through this bizarre twist on the American dream. She has been my intellectual and emotional companion throughout, and I cannot think of anyone with whom I would rather share a single desk in the one-room reality in which we live.

London, 2021

ABSTRACT

THE ANXIETY OF EVOLUTION: BIOLOGICAL AND CULTURAL ADAPTATION FROM MARCEL PROUST TO PETER GREENAWAY

Tomas Elliott

Rebecca Bushnell

This dissertation explores how, in their attempts to explain the transformation of cultural forms across different media, certain theorists, artists, and authors have turned to the models, metaphors, images, and narrative structures of biological evolution and (post-)Darwinian theory. It argues that, in so doing, they have often tended to reveal their own anxieties concerning the status of art and human beings (typically men), rather than provide a so-called objective model for explaining cultural change.

Through an interdisciplinary study of the theoretical and cultural inheritance of Darwinism in the fields of “adaptation studies,” “transmedia studies,” and “biocultural studies,” this dissertation assesses how evolution and its offshoots have been put to work by theorists and artists who have created, studied, and consumed works of art that blend and mix media, hybridize forms, and probe the limits of cultural adaptation, evolution, and transformation. Tracing the variously explicit or implicit deployments of evolutionary ideas in the production and theorization of culture generally and adaptation specifically, the dissertation reveals ongoing anxieties about human and non-human sexuality and procreativity, the separation of nature and culture, the biologically or culturally determined differentiation of sexes and genders, the value of art within utilitarian frameworks, and the reproduction of artworks and organisms in a heteronormalized bioeconomy.

Beginning with an overview of the reception of Darwinism and the overlapping discourses concerning media adaptation in culture and biological adaptation in nature, the dissertation's introduction assesses how certain paradigms and assumptions of evolutionary science have filtered into the discipline of adaptation studies. The first chapter then offers a rereading of a key film within that field, *Adaptation* (2002), written by Charlie Kaufman and directed by Spike Jonze, historicizing its evolutionary paradigms. Subsequently, chapters on the transmedia aesthetics of Marcel Proust, Vladimir Nabokov, and Peter Greenaway assess the uses to which evolutionary theory has been put in works that combine and transform multiple media forms. By identifying a recurrent set of anxieties across these works, many of which insist on particular gender hierarchies and reproductive essentialisms, the study attempts to offer a historically alert assessment of biological and cultural adaptation after Darwin.

TABLE OF CONTENTS

ACKNOWLEDGMENT	ii
ABSTRACT	v
LIST OF ILLUSTRATIONS	viii
INTRODUCTION: ON THE ORIGIN OF ADAPTATION, OR THE PRESERVATION OF FAVORED IDEAS IN THE STRUGGLE FOR THEORY	1
1. THE FANTASY OF EVOLUTION IN A FILM ABOUT FLOWERS	71
2. ALBERTINE IN THE “INNER DARK ROOM”: LIFE IN THE AGE OF MECHANICAL REPRODUCTION	128
3. “A SYSTEM OF TOTAL TYRANNY”: AGENCY AND ADAPTATION IN NABOKOV	195
4. SEX IN THE ZEBRA ENCLOSURE: TRANS-SPECIES HYBRIDITY AND THE LIMITS OF MAN	257
CONCLUSION	293
BIBLIOGRAPHY	306

LIST OF ILLUSTRATIONS

Figure 1. “Spiral Speciation,” Vladimir Nabokov, “showing how two or more organisms may be at the same time ‘distinct’ and ‘co-specific.’” 231

“There is no nature, only the effects of nature: denaturalization or naturalization.”

~ Jacques Derrida, *Given Time* (1992, 170)

INTRODUCTION

ON THE ORIGIN OF ADAPTATION, OR THE PRESERVATION OF FAVORED IDEAS IN THE STRUGGLE FOR THEORY

“Light will be thrown on the origin of man and his history.”

~ Charles Darwin, *On the Origin of Species* (1859, 359)¹

Prologue: The Anxiety of Evolution

As the epigraph to this introduction attests, when Charles Darwin first published *On the Origin of Species by Means of Natural Selection, or the Preservation of Favored Races in the Struggle for Life* (hereafter, *Origin*) in 1859, he remained determinedly reserved about what his theory might mean for human beings, their culture, philosophy, psychology, theology, and more. Couched in the supposedly objectivist terms and passive voice of scientific and historical inquiry, he promised nothing more or less than to cast some light on “the origin of man” (359). If Darwin was reserved about the implications of his ideas, however, his readers were certainly not.

The panic that evolution induced and continues to induce is well-documented, and Darwin’s detractors have often revealed more about their anxieties than they have about the theory of evolution itself.² At the same time, evolution’s most ardent supporters have also

¹ References to *On the Origin of Species by Means of Natural Selection, or the Preservation of Favored Races in the Struggle for Life* are to the Oxford World’s Classics edition, edited by Gillian Beer (2008), which follows the second edition of Darwin’s text, first published on 24 November 1859.

² Several histories of the reception of Darwinism and the history of evolutionary theory have been written, including Carl Zimmer, *Evolution: The Triumph of an Idea from DNA to Darwin* (2003); Siddhartha Mukherjee, *The Gene: An Intimate History* (2016); and Gillian Beer, *Darwin’s Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* (2000).

betrayed certain biases, frequently projecting their hopes and ideologies onto their analyses.³ I use the phrase “the anxiety of evolution,” therefore, to refer to interlocutors on both sides of this divide, a divide that I will discuss in necessarily broad strokes in this prologue, offering the briefest of historical overviews of the Anglo-American and European reception of Darwinism and highlighting the wide prevalence of several of the themes that this dissertation will take up. These themes include the distinction between humans and non-humans, the essentialism of biologically inflected theories of gender and cultural difference, and the heteronormative assumptions that persist in theories of cultural transformation, reproduction, and evolution. This will set the stage for the main focus of the introduction and the dissertation as a whole: the influence of evolutionary ideas on the theory and practice of adaptation.

As is well-known, the threat that Darwinism posed to established modes of thinking is demonstrated by accounts, more or less apocryphal, of its contemporary reception. Perhaps most famously, in the 1860 debate on evolution at the University of Oxford, Bishop Samuel Wilberforce disclosed his true fears when he asked Thomas Henry Huxley, the famous popularizer of evolution who became known as “Darwin’s bulldog,” whether he would “prefer a monkey for his grandfather or his grandmother?”⁴ Fears about the miscegenation implied by evolution’s taxonomical crossovers, as well as the displacement of human beings from their seat atop the hierarchy of creation, clearly informed this panicky offensive. Even when history gives way to myth in the record of Darwinian reception, anxiety remains in the foreground, as in the

³ For a survey of the various ideological appropriations of Darwin, see Gillian Beer’s “Introduction” to *Origin* (2008).

⁴ There is much discrepancy as to the wording of this question and the response it elicited from Huxley. This version was specified in the London weekly, *The Press*, in an article published on 7 July 1860. For an overview of the different reports and recollections, see J. Vernon Jensen, “Return to the Wilberforce—Huxley Debate” (1988). As Ian Hesketh (2009) argues, in general this debate has been the subject of much mythologizing, raised to the status of a battle in the culture wars between science and religion.

“famous legend,” recounted by Stephen Jay Gould (2003, ix), of a Victorian English lady who, upon finishing her reading of *Origin*, worried aloud to her husband: “Oh my dear, let us hope that what Mr Darwin says is not true. But if it is true, let us hope that it will not become generally known!”

Unfortunately for this apocryphal lady, the intervening one hundred and sixty years seem to have crushed her hopes. The theory of evolution has become well known, but the array of anxieties that circulate around it have far from disappeared. As Gillian Beer, the pathbreaking researcher into the cultural reception of Darwin, argues in her introduction to *Origin*, there seems to be something in Darwin’s argument that encourages readers to locate within it either their worries or their dreams: “Different readers can find their hopes and fears confirmed by extending the implications of Darwin’s thought in one direction or another; and, it would later prove, those readers might be individualists, Fascists, Marxists, imperialists, or anarchists” (2008, viii). Some scholars, in fact, have argued that it is precisely this mutability that makes Darwinism itself so powerful. The ability of the theory of evolution to corrode, shape, and reframe ideas across so many different disciplines is what encouraged the philosopher Daniel Dennett (1995) to declare it a “universal acid,” valorizing it as “Darwin’s dangerous idea” (61). Taking a more nuanced approach, the historian of science Siddhartha Mukherjee (2016) pointed out that the gene, Darwin’s “missing science of heredity,” has been “one of the most powerful and dangerous ideas in the history of science” (9). In combination, evolution and genetics have been at the center of some of the greatest discoveries and atrocities of the twentieth and twenty-first centuries; we would be remiss not to approach their premises with caution and skepticism.

Recognizing these problematic histories—both the dangers of evolutionary theory and the anxieties it has provoked—scientists such as Stephen Jay Gould have sometimes sought to

separate the “fact of evolution” (singular) from the “theories” (plural) that have been employed to explain it:

In discussing the truth of evolution, we should make a distinction, as Darwin explicitly did, between the simple *fact* of evolution—defined as the genealogical connection among earthly organisms, based on their descent from a common ancestor, and the history of any lineage as a process of descent with modification—and *theories* (like Darwinian natural selection) that have been proposed to explain the causes of evolutionary change.

(“Introduction,” x-xi; emphasis in original)

In many regards, this is true. But even this argument betrays a certain amount of anxiety in its efforts to distance evolution from the theoretical paradigms that shaped it. Indeed, Gould’s self-evident or tautological claim that, as he puts it, “facts are just facts” is clearly revelatory of a theoretical position and an ideology: namely, empiricism, which despite being somewhat indispensable for the practice of scientific enquiry (one must investigate something), is nevertheless also just a theory. It was invented at a specific historical moment and is therefore accompanied by very particular biases concerning the evidentiary status of the so-called natural world. Indeed, while Gould (2003, xvi) is right to insist, in a reworking of David Hume, that evolutionary ontologies cannot be the basis for hermeneutics or ethics (“the factual state of the universe, whatever it may be, cannot teach us *how we should live* or *what our lives should mean*”), the investigation and description of ontologies necessarily employs hermeneutics (and therefore also relies on ethical assumptions).⁵ “Discourse can never be expunged from scientific enquiry” (Beer, *Darwin’s Plots* 46).

⁵ The reference is to David Hume’s formulation of the is-ought problem in Book III of *A Treatise of Human Nature* (1739), in which Hume contends that philosophers have a tendency to move uncritically from ontological statements about nature to moral statements about behavior: “In every system of morality

This is clear from any account that situates evolution within the longer history of ideas. Darwin's purportedly ontological description of the "factual state of the universe" was indebted not only to the population science of Thomas Malthus but also to established discourses about the fecundity of nature and the metaphysics of variation and change. Furthermore, later post- or neo-Darwinian thinkers also employed particular economic paradigms to frame their ostensibly "factual" accounts of the universe. Leaving aside for the moment the imbrication of the study of evolution with the actively racist paradigms of social Darwinism and eugenics, the work of Richard Dawkins and John Maynard Smith clearly declared its allegiance to the ideals of free market liberalism in its deployment of evolutionary game theory.⁶ I discuss the economic inheritance of evolutionary theory in more detail in Chapter One, historicizing that inheritance through a rereading of the 2002 film *Adaptation* (written by Charlie Kaufman and directed by Spike Jonze), which has become an important touchstone in the discipline of adaptation studies. For now, though, it is enough to recognize that the embeddedness of economic ideas within evolutionary studies clearly demonstrates the reliance of evolutionary theory on particular political paradigms. Indeed, although Marx himself acknowledged the wide-reaching importance of Darwinism, he also noted that it was "remarkable how Darwin recognize[d] among beasts and plants his English society with its division of labor, competition, opening-up of new markets,

which I have hitherto met with, I have always remarked, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when of a sudden I am surprised to find, that instead of the usual copulations of propositions, *is*, and *is not*, I meet with no proposition that is not connected with an *ought*, or an *ought not*" (1985, 521). Hume's distinction between ontology and morality has been an informative backdrop to my thinking about the overlapping study of adaptation in biology and culture; so often, descriptions of adaptation seem to move between so-called neutral or ontological descriptions to so-called moral or political descriptions.

⁶ Richard Dawkins, *The Selfish Gene* (1976), and John Maynard Smith, *Evolution and the Theory of Games* (1982). For a critique of this particular economic inheritance of evolution, see Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (1991).

‘inventions,’ and the Malthusian ‘struggle for existence.’”⁷ By contrast, more than a hundred years later and on the other side of the political spectrum, Stephen Jay Gould was variously critiqued and praised as a “Marxist” evolutionary theorist.⁸ The very history of these attacks and counterattacks suggests that the investigation and interpretation of evolution and nature have always involved particular belief systems and ideological investments.

Similarly, in the history of post-Darwinian cultural production, artists have also tended to reveal their desires and anxieties in their imaginative responses to evolution. In the nineteenth century, as Beer’s research itself documents, evolution was something that artists and scientists grappled with extensively:

It is hard to overestimate the imaginative turmoil brought about by evolutionary theory, beginning in England already in the 1830s with the publication of Lyell’s *Principles of Geology*, continuing in the 1840s with the publication of Robert Chambers’s anonymously published and immensely popular work *Vestiges of the Natural History of Creation*, and concentrated in 1859 by Darwin’s long-ruminated and rapidly written argument, *On the Origin of Species by Means of Natural Selection, or the Preservation of Favored Races in the Struggle for Life*. (Darwin’s Plots 11)

⁷ Marx to Engels, June 18, 1862, *Marx and Engels: Selected Correspondence* (120)

⁸ In his book, *Living in the End Times* (2011, 86), Slavoj Žižek cites Gould favorably as “a Marxist biologist if ever there was one.” On the other hand, his evolutionary theories drew attacks for that very reason. Bernard D. Davis (1983) even went so far as to claim that Gould’s Marxism invalidated his argument, claiming that Gould’s *The Mismeasure of Man* (1981) “ended up as a sophisticated piece of political propaganda, rather than as a balanced scientific analysis” (57). Unsurprisingly, this history tells us more about the ideological investments of different scientists than it does about evolutionary theory, as demonstrated by David Prindle (2006), who argues that the debate around Gould’s Marxism is somewhat overdetermined. As we will see throughout this dissertation, a common strategy among evolutionary biologists (even Gould) has been to argue that whereas their economic models are purely objective or “natural,” others’ are biased and “political.” See, for example, Daniel Dennett in *Darwin’s Dangerous Idea* (1995, 68), discussed in Chapter One.

Beer focuses particularly on how this turmoil manifested itself in nineteenth-century novels. Other scholars such as Jonathan Smith, meanwhile, have explored Darwin's influence on Victorian visual culture.⁹ As studies such as these make clear, just as evolution was met with varying degrees of approval and anxiety in scientific and religious circles, so too did it garner mixed responses from artists and authors. This is evidenced, for example, by John Ruskin's dissociation of his observations on the beauty of flowers in *Proserpina: Studies of Wayside Flowers* (1875-1886) from what he called the "phrenzy for the investigation of... reproductive operations in plants" among biologists (390-1). As Smith demonstrates, Ruskin conceived of his publications "as a partial response to Darwin's botanical books of the 1860s and '70s" ("Domestic Hybrids" 862), most notably *The Various Contrivances by which British and Foreign Orchids are Fertilized by Insects* (1862, hereafter *Orchids*).¹⁰ In contrast to Darwin, Ruskin sought to elaborate a non-utilitarian explanation for the development of flowers. Whereas Darwin had argued at the end of *Orchids* that "the final end of the whole flower... is the production of the seed" (343), Ruskin argued the opposite: "the flower exists for its own sake. The production of the fruit is an added honor to it—it is granted consolation to us for its death. But the flower is the end of the seed—not the seed of the flower" (qtd. in Smith, "Evolutionary Aesthetics" 249-50). As Smith argues, Ruskin's moralistic attempt to divorce beauty and aesthetics from the base materiality of sex (the sexualization of flowers during the "orchid fever" of late nineteenth-century Europe is also in Ruskin's mind) caused him to envision "flora for flora's sake, but not in the way Darwin thought, and not without reference to us" (240).¹¹ In Chapter Two, I will explore

⁹ See Jonathan Smith, *Charles Darwin and Victorian Visual Culture* (2006) and Katelin Krieg, "Ruskin, Darwin, and Looking Beneath Surfaces" (2017).

¹⁰ References are to the 1862 edition, reprinted by Cambridge University Press, 2011.

¹¹ On the "orchid fever" of the Victorian era see Susan Orlean, *The Orchid Thief* (1998, 42-55).

how, in the work of Marcel Proust, such moralistic responses to sexual reproduction are explicitly negotiated in relation to the non-heteronormative understanding of nature that Darwinism both inaugurates and shies away from. In Chapter Three, meanwhile, I will highlight a reformulation of Ruskin's model (which, to paraphrase Smith, we might accurately characterize as *flora for human's sake*) in the non-utilitarian, idealist, and masculinist theories of evolution developed by Vladimir Nabokov across his scientific and fictional works.

In the nineteenth century, it is clear that even when Darwin's theories were enthusiastically embraced by artists and authors, they often encountered ambivalence among audiences and readers. Henry James, for example, complained that George Eliot's *Middlemarch* (1871-2) was "too often an echo of Messrs. Darwin and Huxley," suggesting that one of the problems of this time was identifying where and how evolution should fit within the cultural imaginary (qtd. in Beer, *Darwin's Plots* 139). Indeed, the paradox of the new nineteenth-century sciences was perhaps best encapsulated in the famous opening to *Bleak House* (1852-3), in which the muddy November streets of London transform the city into a prehistoric world, one in which onlookers would not be surprised to see "a Megalosaurus, forty feet long or so, waddling like an elephantine lizard up Holborn Hill" (13). Here the juxtaposition of the Jurassic and the modern literally evokes the efforts of authors to conceptualize paleontology within the landscape of contemporary London.

If these examples help briefly to signal the different ways in which authors responded to evolutionary ideas in the mid- to late-nineteenth century, then Beer's argument should also alert us to the fact that this process was part of a longer trajectory that predated the publication of *Origin*. While there is not space here to extend our investigations too far back into the pre-Darwinian past (one could, of course, reach back at least as far as the Renaissance and the

scientific revolution, or even the classical era, to explore the variously overlapping scientific and cultural representations of nature and biology),¹² I would like to alight briefly on Mary Shelley's *Frankenstein* (1818), whose "Preface," written by Percy Shelley, claimed that the events of the story had been "supposed... as not of impossible occurrence" (3) by the proto-evolutionary scientist Erasmus Darwin, Charles Darwin's grandfather, in his *Zoonomia* (1794-96) and *The Temple of Nature* (1803).¹³ Indeed, *Frankenstein* merits attention precisely because it maintained such a powerful hold on the cultural imaginary both before and after the development of Darwinian evolution and genetics, presumably because it provided both a meta-fictional and a meta-scientific reflection on the discourses of cultural and biological creation and (re-)production. The story of Dr Frankenstein's ability to control and manipulate life could anachronistically be read (and subsequently was read, as in Jed Mercurio's 2007 adaptation of the novel) as a prophetic parable for the power that was bestowed upon humanity following the discovery of the gene. Commenting on that power with unnerving prescience in 1905, the evolutionary biologist and geneticist William Bateson wrote:

When power is discovered, man always turns to it... The science of heredity will soon provide power on a stupendous scale; and in some country, at some time not, perhaps, far distant, that power will be applied to the control and composition of a nation. Whether

¹² For surveys in and before the early modern period see Rebecca Bushnell, *Green Desire: Imagining Early Modern English Gardens* (2003) and *The Marvels of the World: An Anthology of Nature Writing Before 1700* (2020).

¹³ References to *Frankenstein* are to the Oxford World's Classics edition of the text, edited by Marilyn Butler (1993), which follows the 1818 edition of Shelley's text. The passages in Erasmus Darwin's work that are of particular relevance to *Frankenstein* are the discussions of spontaneous generation in *The Temple of Nature* (247-8), as well as the addendum to the same work: "Spontaneous Vitality of Microscopic Animals."

the institution of such control will ultimately be good or bad for that nation, or for humanity at large, is a separate question. (459)

As the twentieth century offered frequently horrifying answers to that question, Mary Shelley's *Frankenstein* re-emerged in many forms as both a morality tale about the dangers of manipulating life (the tragedy of Dr Frankenstein) and a locus for anxieties about race, gender, and the limits of the human (the tragedy of the creature). Following the combination of genetics with the shaky interpretations of Darwinism in the racist and eugenicist programs of, among others, Francis Galton, the discourse of monstrosity in *Frankenstein* was explicitly put to use in the service of racist ideologies. As Elizabeth Young (1991) argues, this can be seen through the alignment of the creature with representations of Blackness and atavism in the Hollywood adaptations of the story that emerged in the 1930s (*Frankenstein*, 1931; *Bride of Frankenstein*, 1935). Young argues that, in these films, "we might think of the monster [creature] as the cousin to that most famous of demonized movie characters from the era, the one who not only appears 'ape-like,' but in the form of an actual ape: King Kong" (424). That Frankenstein's creature was explicitly given a "primitive, Neanderthal appearance" in these adaptations further demonstrates the story's belated entanglement with emergent racial pseudo-sciences.

In more general terms, it is unsurprising that representations of apes across literature, film, and media should be revealing places to look when attempting to assess the impact of evolutionary theory on cultural production (as Donna Haraway demonstrated in *Simians, Cyborgs, and Women*, 1991). Two films in particular, both released in 1968, speak to concerns over the human-simian connection: *2001: A Space Odyssey* and *Planet of the Apes*. The first of these attempted to encapsulate the history and future of the taxonomic family of the Hominidae. In so doing, however, it clearly revealed ongoing anxieties about mankind's purportedly violent

animal heritage. Moreover, while the film displays an openness to the radical possibility of alterity (something fundamentally alien, non-hominid), it nevertheless also suggests that human beings' inability to adapt or change over time will one day see them displaced by other forms of life. This anxiety of human stasis is doubly represented in *Planet of the Apes*, a film in which mankind remains fixed not only in time but also in space. In this film, despite imagining himself as a great adventurer across both temporal and physical distances, "a traveler from an antique land," man ultimately finds himself rooted to the spot, forced to look upon his mighty works and despair (P. Shelley 198). As such, the so-called social evolution of man (and it is precisely man—neglecting Noah's rules, only one of the four cosmonauts brought aboard the spaceship is a woman, and she dies before the story proper begins) is revealed to be a baseless myth, as apes take on the markers of so-called human exceptionalism: language, culture, law, and politics. Thus, the film reveals that, in the evolutionary discourses of the mid-twentieth century, human beings continued to be haunted by the anxiety that they were not as far *distanced* from apes as they had liked to think. Indeed, even in so-called comedies of roughly the same era, such as Howard Hawks' *Monkey Business* (1952), laughter is inflected with anxiety about the relationship between humans and apes, masking fears about what might happen if "primitive" apes were to learn to unlock the cages that scientists had built for them or, more worryingly, if "civilized" scientists were to begin behaving in "primitive," "childish" ways. That "primitive" and "childish" in this film are explicitly figured through depictions of Cary Grant acting out Native American stereotypes tells us again that the cultural inheritance of these evolutionary ideas continued and continues to be inflected with racist ideologies. Facts are never just facts.

2001: A Space Odyssey also fits into a specific network of cultural products that have reproduced the themes of *Frankenstein* and later evolutionary anxieties through their

representation of the displacement of humans by technology.¹⁴ In *2001*, this is explored through the figure of HAL 9000 who, like Frankenstein's creature, takes revenge on his human creators. This theme is prevalent across multiple twentieth- and twenty-first-century representations of the evolution of technology, most notably in depictions of conscious robots (*I, Robot*, 1950; *Ex Machina*, 2014), androids (*Do Androids Dream of Electric Sheep?*, 1968; *Blade Runner*, 1982), intelligent machines (*The Terminator*, 1984; *The Matrix*, 1999), and Artificial Intelligences (*A.I.*, 2001; *Her*, 2013). In a way, all of these works echo the themes of *Frankenstein* and demonstrate the anxiety of evolution in their exploration of humans who are haunted by the more or less humanoid beings that they create. They clearly refract Shelley's novel through the discourses of the information age, whose theories have long been considered a "quite direct descendant of Darwin's idea" (Dennett 27). Indeed, this inheritance is clearly visible in Norbert Wiener's foundational theory of the overlap between biological and technological communication systems, *Cybernetics: Or Control and Communication in the Animal and the Machine* (1948), as well as in the challenge posed to human essentialism by Alan Turing's imitation game in "Computing Machinery and Intelligence" (1950). Both of these works paved the way for refiguring Darwinism as a theory of media communication involving the interpretation and transformation of biological messages, thereby signaling the complex crossovers between biology and media theory that would later overlap in the neo-Darwinist systems theories of the 1960s and 1970s.¹⁵ I discuss these crossovers in more detail in the following sections of this introduction.

¹⁴ For a much more in-depth study of the diffuse reception of *Frankenstein* in films "addressing biological modifications such as artificially created bodies, cyborgs, and robots," see Lester D. Friedman and Allison B. Kavey, *Monstrous Progeny: A History of the Frankenstein Narratives* (2016, 21).

¹⁵ On the Darwinism of Alan Turing and the complex crossovers between media and biology, see Timothy Morton's *The Ecological Thought* (2010), in which he argues, for example, that "DNA is both matter and information" (83).

In terms of cultural history, it is telling that, while the literary and cinematic negotiation of this scientific lineage often reproduced anxieties about the definition and evolutionary displacement of the human, *post*-humanist theorists reached for them precisely to unlock the political and poetic potential of that displacement. Donna Haraway, for example, in her discussion of the overlapping discourses of biology, technology, and gender in “A Cyborg Manifesto” (1985, *Simians* 178), argued that “the replicant Rachel in the Ridley Scott film *Blade Runner* stands as the image of cyborg culture’s fear, love, and confusion,” pointing to a network of anxieties about post-human evolution that the film is not fully able to work through. As Haraway pointed out, whether intentionally or not, the post-human horizons of these representations seemed to upset traditional understandings of gender and identity, signaling a new ontological and affective reality occupied by “cyborgs, hybrids, mosaics, chimeras,” and more (177). In many ways, these were simply new figures for the taxonomic crossovers that evolutionary history had itself predicted as having existed in the past, now projected onto new possibilities for evolution in the future. My discussion in Chapter Four of the trans-species crossovers represented in the films of Peter Greenaway will explore this continuum, while also reflecting on the persistence of specifically gendered assumptions about procreativity and reproductivity in their discourses. Within the wider scope of the twentieth and twenty-first century cultural inheritance of Darwinism, though, we can already say that such a persistence is unsurprising, given that the actual representations of the futuristic crossovers that Haraway explored have themselves tended to re-inscribe the traditional ontologies and categorizations that they might otherwise have unsettled. Films like *Ex Machina* (2014), for example, continued to re-affirm humanist gender binaries by shifting the locus classicus of the *Frankenstein* myth from Prometheus to Pygmalion. As a result, the anxiety over the evolution and development of an

Artificial Intelligence comes to align with man's fear of going unloved by the female form he has created. While *Ex Machina*'s Ava is, in a sense, a progressive reimagining of Galatea (murdering and abandoning the men who seek to control her), she is also just another version of what Barbara Creed (1993) called the "monstrous feminine" on screen, provoking anxiety in men on account of her destructive sexuality (1). Thus, the film re-imagines the struggle between human and post-human life as simply another version of what evolutionary theorists have been all too quick to call "the battle of the sexes."¹⁶ As I will argue now and demonstrate throughout this dissertation, that so-called battle has been a predominant focal point of evolutionary theories of culture, as these have frequently developed their analyses by emphasizing the supposed naturalness of sexual differentiation.

This was already evident in Darwin's own discussions of sexual difference and his analysis of the biological and cultural evolution of human beings. While male and female humans are conspicuous only by their absence from *Origin*, they are a central focus of Darwin's later work *The Descent of Man, and Selection in Relation to Sex* (1871, hereafter *Descent*), which has proved highly influential in so-called evolutionary theories of culture.¹⁷ Part of Darwin's argument in this text is that the art of human beings and other species developed as a form of sexual display. In broad terms, Darwin argues that, from the elaborate tails of peacocks to the art

¹⁶ Various indiscriminate uses of this phrase can be found. See, for example, the title of the chapter in Richard Dawkins, *The Selfish Gene* (2016, 182-216); the descriptions of the "battle for females" in Matt Ridley, *The Red Queen: Sex and the Evolution of Human Nature* (1994, 131). For a comprehensive survey and erudite deconstruction of the sexist legacy of the evolutionary theory of sexual differentiation, particularly in fields such as evolutionary psychology, see Mari Ruti, *The Age of Scientific Sexism: How Evolutionary Psychology Promotes Gender Profiling and Fans the Battle of the Sexes* (2015).

¹⁷ References are to the Penguin Classics edition of the text, edited by James Moore and Adrian Desmond (2004), which follows the second edition of Darwin's text, published in 1874. For the few words that Darwin provides on "Sexual Selection" in *Origin*, see Darwin (2008, 68-70).

of human painting, aestheticism and ornamentation developed as mechanisms for attracting a mate (a mate that, in Darwin and the later evolutionary literature, was almost universally figured as female). This heteronormalized model of evolution encouraged Darwin to insist on the biological truth of gendered cultural difference, which he claimed was shown “by man’s attaining to a higher eminence, in whatever he takes up, than can woman” (629). Since Darwin viewed human and non-human females as possessing the prerogative to “choose” between ostentatious and competing males, this led him to conclude that the works of men in “poetry, painting, sculpture, music (inclusive both of composition and performance), history, science, and philosophy” were all developed in competition with other men in order to impress women (629). This meant, for Darwin, that women had little motivation to evolve, since their duty was simply to choose, rather than act; accordingly, they developed no cultural or artistic skills, which explained why for Darwin “man has ultimately become superior to woman” (631). In his summary, he makes the trajectory from peacock to man explicit:

It is, indeed, fortunate that the law of the equal transmission of characters to both sexes prevails with mammals; otherwise, it is probable that man would have become as superior in mental endowment to woman as the peacock is in ornamental plumage to the peahen. (631)

Almost immediately, Darwin’s views drew critiques from both scientific and sociological perspectives.¹⁸ In 1894, for example, Eliza Burt Gamble argued the following in *The Evolution of Woman: An Inquiry into the Dogma of Her Inferiority to Man*: “when a man and woman are put into competition, both possessed of every mental quality in equal perfection... the chances of the

¹⁸ For a survey of women’s early responses to Darwin, see Angela Saini, *Inferior* (2017) and Kimberly Hamlin, *From Eve to Evolution: Darwin, Science, and Women’s Rights in Gilded Age America* (2014).

latter for gaining ascendancy will doubtless be equal to the former” (66). Thus, while largely buying into the competition models of Darwin’s text, Gamble already identified the social determination of the purportedly biological differentiation of the sexes, anticipating by over half a century Simone de Beauvoir’s more widely known critique: “one is not born, but rather becomes, a woman” (*The Second Sex*, 1949, 293). I will have occasion to return to Beauvoir’s powerful deconstruction of (post-)Darwinian evolutionary paradigms in Chapter Three. But it is telling that even in spite of the long history of feminist and scientific critiques of “sexual selection,” it has continued to maintain a significant hold over evolutionary theories of culture, as I outline below.

First, though, it is worth noting that Darwin’s idea of sexual selection as a driver behind artistic or cultural production (from peacock feathers to painting) can, from a certain perspective, be seen as the structural obverse of the Freudian paradigm of culture as the sublimation of sexual desire (for Darwin, culture is nothing more or less than a *precursor* to heterosexual intercourse).¹⁹ On the other hand, though, it clearly aligns with the predominant essentialisms that prevail in Freudian biology, which received their most precise formulation in the claim that “anatomy is destiny” (“Dissolution” 665). Freud, of course, took the promise of evolutionary theory as an important foundation for the development of psychoanalysis, claiming that “the theories of Darwin... held out hopes of extraordinary advance in our understanding of the world” (*Autobiographical Study* 8).²⁰ Particularly in his speculative essays such as *Beyond the Pleasure Principle* (1920), he saw himself as building on the theories of Darwin and other contemporary

¹⁹ A classic description of the relation between sublimation and cultural production is found in the *Three Essays on the Theory of Sexuality* (1905). Here Freud argues that sublimation “enables excessively strong excitations arising from particular sources of sexuality to find an outlet and use in other fields, so that a not inconsiderable increase in psychical efficiency results from a disposition which in itself is perilous. Here we have one of the origins of artistic activity” (104).

²⁰ For a summary of the connections between Freud and Darwin, see Lucille B. Ritvo, *Darwin’s Influence on Freud: A Tale of Two Sciences* (1992).

evolutionary thinkers in order to unseat human beings from their place atop the schema of creation and unsettle the division between the rational human and the passionate animal. As Frank Sulloway (1979) has argued in his study of Freud's biologism, "it was Darwin who handed Freud that most powerful instrument—namely, evolutionary theory's stress upon the dynamic, the instinctual, and, above all, the nonrational in human behavior" (276). With respect to Darwin's theory of sexual selection, moreover, it is clear that Darwin's analysis, which moves from the ostentatious tail of the *peacock* to an assessment of how men possess what women supposedly lack, is hardly much removed from the later Freudian claim that from the moment when they first notice "the penis of a brother or playmate, strikingly visible and of large proportions," women "fall victim to envy for the penis" ("Psychical Consequences" 673). In both cases, the biggest and most ostentatiously visible organ is conveniently held to be the best. To put the matter simply, Darwin's theory of sexual selection—incidentally remarkably homosocialist for someone so interested in sexual differentiation and reproduction—clearly assumes that human and non-human art is only and inherently male and directed solely and exclusively towards women. In a similar way, sublimation, far from being gender neutral, has always, according to Freud, to grapple with the fact that "morphological distinction is bound to find expression in differences of psychical development" ("Dissolution" 665). Or, as he puts it elsewhere: "for the psychical field, the biological does in fact play the part of an underlying bedrock" ("Analysis" 252). Thus, for both Darwin and Freud, though in opposing ways, biology underwrote the truth of cultural evolution (whether figured as a process of sublimation or sexual selection) in ways that should clearly, given their apparent sexism, give pause to any urge to reach for the authority of evolutionary biology as the ontological or epistemological ground (the "underlying bedrock") on which to base a theory of culture.

Nevertheless, there currently seems to be no end in sight for the books and articles (both pop- and non-pop-scientific) that unquestioningly repeat the basic premises of Darwinian sexual selection in developing a theory of human culture. Indeed, Mari Ruti (2015) argues that many of their paradigms are still part of the “standard narrative” of human or cultural evolution, particularly in the field that harbors an explicit debt to both Freud and Darwin, evolutionary psychology (28). Though I do not wish to grant too many misogynist and essentialist arguments from that field the dignity of analytical airtime, I will cover a few representative highlights from the late twentieth and early twenty-first centuries. In *The Red Queen: Sex and the Evolution of Human Nature* (1994, 13), Matt Ridley bases worryingly eugenicist claims on the so-called aesthetic ideals of (hetero-)sexual selection: “people are attracted to people of high reproductive and genetic potential—the healthy, the fit, and the powerful.” This, predictably, goes on to underwrite such pseudo-scientific arguments as, for example, the idea that all “women” are naturally predisposed to covet a slim waist as a marker of “beauty” since it “owes more to competition to attract men than to any other biological need. Men have been unconsciously acting as selective breeders of women” (284). While one might assume that no one could read such a line without shuddering at the horror of a world in which one gender serves as the “selective breeders” of another, it is telling that Richard Dawkins responded merely with a shrug in his back-cover review of the Penguin paperback edition: “Matt Ridley is more concerned with clarity of explanation, elegance of style and simple, honest truth than he is with the yawn-inducing canons of political correctness.” One would think it sufficient to point out that Ridley is hardly concerned with *correctness* of any sort, but we find similar versions of his ideas circulating well into the twenty-first century. In 2000, for example, Geoffrey Miller was still able to argue that sexual selection was a “driving force behind the expansion of the human mind and higher human

behavior: intelligence, inventiveness, art, humor, kindness” (75). And in 2013, in a book on the purported evolutionary origins of storytelling, Jonathan Gottschall, despite proffering some skepticism over Darwin’s theory of sexual selection, could still claim that “boys and girls” in school classrooms “spontaneously segregate themselves by sex,” leading them to engage in different kinds of imaginary and fictional world-building (39). If it is easy to be dismissive of the acrobatic self-delusion required to imagine *spontaneous schoolrooms*(!), I will demonstrate in this dissertation that similar ideas have regularly emerged more or less explicitly in artistic works and theories that have treated biological and cultural adaptation and evolution in the wake of Darwinism.

Later in this introduction, I will consider how the ideas of evolutionary theory have filtered into the discipline of adaptation studies (though without the surface-level sexism of the studies mentioned here). For now, though, I would simply like to note that these so-called theories of cultural evolution have often buttressed their arguments by dismissing the entire legacy of critical theory that had done so much to expose the biases involved in definitions of the “natural,” particularly in relation to gender. Such dismissals are common across this field of inquiry, which tends to identify itself as “literary Darwinism.” As Jonathan Kramnick (2011) notes, that field “has two defining features: an adherence to evolutionary psychology as an explanatory theory of human behavior and a weariness bordering on hostility to the current state of the humanities” (317). Indeed, this is evidenced by Johnathan Gottschall’s own attempt, in a 2010 book co-authored with Jonathan Carroll and Brian Boyd (*Literature, Film, Evolution*, 2010), to dismiss the entire poststructuralist enterprise as outdated and irrelevant: “poststructuralism swept through departments of literature and film in the late 1970s and early 1980s, but its once fresh questions have hardened into habit or dogma” (1). A year previously, in a landmark, single-

author study entitled *On the Origin of Stories* (2009), Brian Boyd had gone so far as to claim that humanities professors had been engaged in a kind of poststructuralist conspiracy, hoodwinking people into thinking that “reading” was a valuable activity (perish the thought):

Seeing the world as discourse, as text, as many in the humanities convinced themselves they did in the late twentieth century, encouraged the idea—comforting for professional readers of texts—that they could transform the world just by reading it differently. But no, there is a world outside language, and that world does call out for substantive social change. (27)

If this is a gross misunderstanding (or deliberate misrepresentation) of Barthesian semiotics, Foucauldian discourse analysis, and Derridean deconstruction, it also deliberately neglects to mention the long list of pre- and post-structuralist feminists who had quite precisely deconstructed the naturalist essentialisms on which the edifice of Darwinism (literary or otherwise) had been based. Neglecting to *read* the ways in which science is produced—convenient for professional promoters of science—the literary Darwinists choose to forget the fact that even before Barthes revealed “the linguistic status of science” (“From Science to Literature,” 1989, 10), Beauvoir had rigorously demonstrated how “biological data take on those values that the existent confers on them” (1949, 48). Indeed, it is surely only by neglecting to account for the *structuration* of language that one could entertain ideas such as “boys and girls spontaneously segregate themselves by sex” (Gottschall 39). As Judith Butler demonstrated, developing what Jacques Lacan (“Instance” 1957) revealed long ago, “boy” and “girl” are terms which, in public arenas such as schools, *cannot but be read*—on bathroom doors and elsewhere—they are, in Butler’s specifically Foucauldian language, “regulatory fictions that consolidate and naturalize the convergent power regimes of masculine and heterosexist oppression” (*Gender*

Trouble 46). In other words, unless researchers were to examine the kinds of fictional world-building that go on in what Jack Halberstam (1998) identifies as that “sanctuary of enhanced femininity, [the] ‘*little girl’s room*,’” it would be difficult for them to recognize how that world-building continued in the (phantasmatically) non-segregated space of the classroom (24; emphasis in original). I will return more specifically to the significance of Beauvoir’s and Butler’s challenges to evolutionary theory in Chapter Three, but for now I will simply say that what Boyd and others long to forget is that their evolutionary origin stories are clearly reliant on “regulatory fictions” in and of themselves. The origin story, as Gillian Beer (*Darwin’s Plots* 97) points out, is not a self-evident or natural paradigm for scientific inquiry; it is connected as much to the development of the eighteenth- and nineteenth-century Bildungsroman as to the Enlightenment obsession with cultural, natural, and anthropological histories. In their longing to identify the origin of fictional stories, in other words, literary Darwinists are determined to deny the regulatory power of stories of origin.

It makes sense to return, in this light, to *Frankenstein*, which already exposed the various ways in which ideas about gender and sexuality are regulated as much by stories of origin as by so-called nature. As is well known, the creature’s desire for a female companion derives not from some inherent, biological drive but from a precise *misreading* of a work of fiction, *Paradise Lost* (1667), which he takes “as a true history” (129). Believing himself to be “like Adam” (only worse off as he is Eve-less) the creature frames his so-called need for a mate as a juridical right based on his philosophy of nature (129). “Shall each man,” he asks, “find a wife for his bosom, and each beast have his mate, and I be alone?” (167). Access to a mate, he insists, is a *natural* right:

I am alone and miserable; man will not associate with me; but one as deformed and horrible as myself *would not deny herself to me*. My companion must be of *the same*

species and have the same defects. This being you must create... *You must create a female for me* with whom I can live in the interchange of those sympathies *necessary for my being*. This you alone can do, and *I demand it as a right* which you must not refuse to concede. (144; my emphases)

Of course, that the creature should traverse the limits of natural history, imaginative fiction, and Enlightenment political theory in making this argument demonstrates the discursive overlap between the scientific and the social determination of sexual differentiation and, by extension, heterosexual intercourse and procreation. It is noteworthy, however, that later *Frankenstein* retellings seem to have been less willing to explore this, content merely to reproduce the gender binaries that the creature derives from *Paradise Lost* (again, we could cite Rachel in *Blade Runner* and Ava in *Ex Machina*).

Moreover, works in this lineage have also revealed their anxieties about gender and human origins through their exploration of reproduction and procreation. Tellingly, scholars have frequently examined *Frankenstein* and its various adaptations by revaluing them as “hideous progeny,” the term that Shelley herself used to describe her novel.²¹ These works refigure the

²¹ See, for example, Lester D. Friedman and Allison B. Kavey, *Monstrous Progeny: A History of the Frankenstein Narratives* (2016) and Julie Grossman, *Literature, Film, and Their Hideous Progeny: Adaptation and ElastEXTity* (2015). These are both highly nuanced and engaging studies, and I regret that I must relegate them to a footnote. Something that Julie Grossman’s work explicitly engages with that is of particular relevance to this study is the notion of “anxiety” in relation to “reproduction” and “authorship.” Grossman writes: “In the preface to *Frankenstein*, Shelley calls the novel her ‘hideous progeny’ in part because of the horror of the story of the creature and his creator, Victor Frankenstein, and in part, as critics have noted, because of her own *anxiety about authorship*. I want to draw an analogy between this structure of relations and the difficult birthing of adaptations from originary texts” (9). These notions of the anxiety of authorship and reproduction suggest, as I will argue in the latter stages of this introduction, that “reproduction” is itself not monolithic, being variously refigured and revalued in different contexts and at different times. Sometimes it can be valued for its potential for “growth,” whereas at other times it can be a source of anxiety and concern.

cultural adaptation of *Frankenstein* (and seek to value it positively) as a process of monstrous, hybrid transformation, again connecting with the evolutionary discourses of crossing between boundaries. Nevertheless, I will argue that such terminology still largely assumes that procreation and reproduction across biology and culture are somehow necessary and natural (even if they result in unsettling monsters). As we will see, discourses in adaptation studies frequently employ metaphors and paradigms connected to “reproduction” and “fertility” in their discussion of the transformation and recreation of works of art, but they have a tendency to naturalize such terms, assuming that they are necessary functions of both biology and media.

I will argue, by contrast, that such discourses frequently rely on specific *economic* theories that foreground productivity and utilitarian growth as much as on so-called objective or empiricist accounts of the natural world. In the reception of Darwin in Western popular culture, this idea can already be glimpsed in yet another set of novels and films that echo the themes of *Frankenstein* and explore the imbrication of evolution, economics, and media adaptation: Michael Crichton’s *Jurassic Park* (1990) and *The Lost World* (1995), along with their many cinematic adaptations, sequels, and reboots. Like other “Frankensteinian” texts mentioned above, these evolutionary disaster stories explore the hubris of human beings in striving to wield genetic power for their own ends (incidentally, Michael Fuchs, 2016, has explicitly labeled the dinosaurs in the first *Jurassic Park* film, released in 1993, “Frankensteinian,” presumably intending by that to compare them with the creature). Alongside the theme of dinosaurs as so-called unnatural (unnaturally natural) monsters, though, the *Jurassic Park* franchise is notable for its exploration of the connections between economics, media, and aesthetics in the appropriation of Darwin and genetics. The aim of John Hammond is quite precisely to deploy the scientific disciplines of genetics and paleontology for the cultural commodification of nature. The disaster that ensues

suggests that, in the process of adapting the so-called natural world (or life itself) into a theme park for human consumption, the culture industry, as much as scientific ambition, is to blame for the problems of evolutionary and genetic manipulation. Indeed, the first *Jurassic Park* film has long been hailed for its “self-consciousness about [its] own status as spectacle,” notably in its exploration of the multiple layers of mediation involved in creating what Jean Baudrillard called “models of a real without origin or reality” (King 42; Baudrillard 2). The film reflects actively on the (com)modification, creation, and manipulation of a nature that, symbolically, is always already mediated, but that nonetheless continues to threaten quite actively in the real. Indeed, it is notable that, while the scientists of *Jurassic Park* manage the commodification of nature almost to perfection (here, unlike in *Bleak House*, dinosaurs have been perfectly assimilated into the contemporary landscape), nature nevertheless strikes back at the level of the real. Remediated life adapts, specifically through reproduction: the solely female dinosaurs start to breed. Biological adaptation crashes headlong into cultural adaptation, and, in the words of *Jurassic Park*’s evolutionary chaos theorist, Ian Malcolm, “life finds a way.”

I will have occasion to consider the ramifications of what it means to “adapt life” (an idea that *Jurassic Park* clearly thematizes) at various points in this dissertation. I will argue, though, that in all my various case studies, the representation and adaptation of so-called life is dependent as much on anxieties about the natural world and its relationship to art as it is on supposedly neutral or scientific depictions of nature. In Chapter One, through a reading of Charlie Kaufman’s and Spike Jonze’s *Adaptation* (a reworking of Susan Orlean’s *The Orchid Thief*, 1998), I argue that “life” in the film is represented in the terms of a heteronormalized bioeconomy. Charlie, the film’s protagonist, is depicted as a dysfunctional and solitary artist who is compelled to come back to “life,” thereby becoming both economically “productive” and sexually “reproductive”

within the grand narratives of cultural and biological evolution. In Chapter Two, I focus on the representation of life in Marcel Proust's *In Search of Lost Time* (1913-1927).²² I find that Proust's narrator frequently represents life (most notably the life of Albertine) as being resistant to capture or representation; I argue, however, that this is more an excuse for not having to grapple with the reality of Albertine than it is a necessary aspect of her so-called nature. In Chapter Three, I examine several works by Vladimir Nabokov (particularly *The Gift*, 1938, and *Lolita*, 1955). I argue that Nabokov's depiction of life and evolution across these texts largely relies on masculinist and humanist hierarchies. Finally, in Chapter Four, I argue that while Peter Greenaway (in films like *A Zed and Two Noughts*, 1985, and *Darwin*, 1993) capably deconstructs the adaptation of animal life for human consumption within spectatorial spaces such as zoos (anticipating the themes of *Jurassic Park*), he also seems to fall back on certain essentialisms regarding female fertility in his search for evolutionary renewal.

As well as for their interest in the representation of evolution and life, however, I have chosen these case studies because they explicitly thematize the act of mixing media and hybridizing cultural forms. Indeed, it is arguably this that distinguishes my dissertation from other histories of the influence of evolutionary theory on literary and visual culture, many of which have already been written and which display an intellectual range far in excess of what I could offer here. All of my case studies explore the processes of transitioning between media, from the "layers of art" that characterize Proust's painterly prose, to the "cinematophors" of Nabokov's novels and the *tableaux vivants* of Greenaway's films (Proust, *WBS* 43; Nabokov, *Letters* 537).

²² References to Proust's *In Search of Lost Time* are to the Penguin Classics editions of each volume (2003), which were all translated by a different translator, overseen by Christopher Prendergast. I use the following abbreviations to refer to each of the different volumes: *The Way by Swann's* (*WBS*); *In the Shadow of Young Girls in Flower* (*SYG*); *The Guermantes Way* (*GW*); *Sodom and Gomorrah* (*SG*); *The Prisoner* (*P*); *The Fugitive* (*F*); *Finding Time Again* (*FTA*).

As mentioned, evolutionary theory itself suggested the possibility for hybrid crossovers, and I am interested in how that gets distributed across works of art that thematize, or theories of art that analyze, the specific processes of crossing between media boundaries. To set up this particular area of inquiry, therefore, in the remainder of this introduction I will offer an overview of theories of media hybridity and cultural adaptation, focusing particularly on theorists who have turned to the discourses of evolutionary biology in their search for critical paradigms. I will argue that, in so doing, many of them have also been forced to rely on essentialisms regarding the reproduction of nature and art, the differentiation between sexes and genders, and the so-called naturalness of creativity, fertility, and hybridity across both culture and biology. To help clarify why this should be the case, I begin by mapping out the various fields of inquiry with which my dissertation is in dialogue.

Establishing Shots: Is There Such a Thing as Adaptation Theory?

The major fields that I address in this dissertation are “adaptation studies,” “transmedia studies,” and “biocultural studies.” If I posit these fields for the purposes of shaping my argument, though, then it should be noted that their status and even their existence are somewhat in doubt. Adaptation studies, for example, has tended to find itself caught in interdisciplinary gaps, situated somewhere between literary, film, and cultural studies. Scholars have sometimes worried that this has limited researchers’ ability to generate an effective theory or set of theories about adaptation. Indeed, in 2003, Thomas Leitch noted that while there is “such a thing as adaptation studies,” in which students and researchers examine the crossovers between literature, film, and other media forms, there is “no such thing as contemporary adaptation theory” (149). Kamilla Elliott’s recent meta-theoretical account of the field, *Theorizing Adaptation* (2020), has

gone a long way towards challenging that idea, but she argues that there still remains a widespread (mis-)conception that the field lacks what Robert B. Ray called “a presiding poetics” (2000, 44).

Meanwhile, the fields that I have labelled “biocultural studies” and “transmedia studies” are in even more doubt; even the terms that I have used to designate them are of questionable status. While the portmanteau word “bio-cultural” boasts a scattered but significant history in the OED, with entries running back to 1914, “trans-media” has no entry at all (though “trans-” as a prefix and “media” as a noun both do).²³ On the other hand, the research histories related to both these terms reverses this hierarchy. The MLA International Bibliography lists 218 articles and chapters and 35 book-length studies with the term “transmedia” in the title, whereas it features just 68 works that include the term “biocultural.”²⁴ A search for “evolution,” however, returns more than 10,000 results, and Brian Boyd, the evolutionary cultural theorist, mentioned above, from whom I take the term “biocultural,” has argued that it can be used “almost interchangeably” with the term “evolutionary” (25). In *On the Origin of Stories* (2009), Boyd defines “biocultural” studies as those which take “full note of biology *and* of the culture that evolution has made possible” (25; emphasis in original). In other words, “biocultural” is used to refer to the development of (predominantly human but occasionally other species’) cultural production within the contexts of biology and evolution. Thus, it relates to the field of “literary Darwinism,” mentioned above, but I prefer the term “biocultural” as it is able to embrace other media forms and encompass a wider range of disciplines, including fields such as “memetics,” “evolutionary psychology,” and “evolutionary linguistics.”

²³ “Bio-, comb. form.” 1a. “biocultural.” *OED Online*, Oxford University Press, March 2021, www.oed.com/view/Entry/19188. Accessed 28 March 2021.

²⁴ *MLA International Bibliography*, EBSCO Host. Search date 28 March 2021.

The field of transmedia studies is no less broad, but it shares clear overlaps with adaptation studies. While the latter has, historically, often been focused on the intersections and crossovers between literature and film, it has also embraced broader discourses exploring the crossovers between media in general. It is this that I intend to designate by the word “transmedia,” which also overlaps with terms such as “intermediality,” “multimediality,” and “transcreation,” all of which can be broadly used to refer to the processes of transforming works of art across media, or of blending and mixing the aesthetics and/or forms of one medium into the aesthetics and/or forms of another.

In this way, transmedia theories share much of their critical energy with the theories of “intertextuality” and “transtextuality” developed by, among others, Julia Kristeva (“Revolution in Poetic Language,” 1974), Gérard Genette (*Palimpsests*, 1997), and Roland Barthes (“Death of the Author,” 1968), and these theories have been frequent touchstones for adaptation scholars, as I discuss below. As I have already noted, to the consternation of the literary Darwinists, Barthes famously argued that all visual and verbal texts are composed of a “tissue of quotations, drawn from innumerable centers of culture,” thereby suggesting an endless form of entanglement, a seemingly limitless expanse of cultural remediation (1968, 1324). As we will see, adaptation scholars have highlighted certain problems with the generalizing élan of this poststructuralist framework, but we can already see how it points to the overlaps between the study of transmedia artworks and the study of adaptations. Indeed, the idea that theories of intertextuality, transmediality, and adaptation are fundamentally interconnected is evidenced by the history of the term “transmedia” itself. That term is perhaps most recognizable today in the context of Henry Jenkins’ theory of “transmedia storytelling,” outlined in his book *Convergence Culture: Where Old and New Media Collide* (2008). In this work, Jenkins used the term primarily to describe

stories and worlds that exist in separate but overlapping media spheres (rather than at the transformational interstices between different media). In his “Glossary,” he defined “transmedia storytelling” as “stories that unfold across multiple media platforms, with each medium making *distinctive contributions* to our understanding of the world” (334; my emphasis). The earliest mention of the term “transmedia” recorded by the MLA International Bibliography, however, links it explicitly to “intertextuality”: the two words appear side by side in Marsha Kinder’s 1991 study, “Saturday Morning Television: Endless Consumption and Transmedia Intertextuality in *Muppets*, *Raisins*, and *The Lasagna Zone*,” suggesting that “transmediality” can be thought to share just as much with Barthes’ tissue of quotations as with Jenkins’ distributed story worlds. In general, the overlapping concern across all of these areas of inquiry with media transformation, textual and cultural circulation, and hybrid forms of art suggests a shared theoretical heritage between theories of transmediality, intertextuality, and adaptation.

This heritage also helps to clarify how my dissertation in particular has come to intersect with the evolutionary theories and biocultural studies mentioned above. It may not be immediately obvious—and nor should it be taken as self-evident—that there is an inherent link between what theorists of evolution have called biological adaptation and what media theorists have called cultural adaptation. Nevertheless, the field of adaptation studies has long harbored a more or less explicit biologism in many of its theoretical paradigms. Kamilla Elliott (2020) has argued that one of the prevailing features of early twentieth-century theories of adaptation was, paradoxically, an emphasis on the taxonomical distinctions between media, an idea known as “medium specificity” theory. Elliott traces this emphasis back to an overlap between pre-evolutionary biology and the early theorization of media. She notes that one of the works that, rightly or wrongly, has come to be considered a founding document for adaptation studies is

George Bluestone's *Novels into Film* (1957). This work argued primarily for the separation between different media, claiming that "cinematic and literary forms resist conversion" and that "the film and the novel remain separate institutions, each achieving its best results by exploring unique and specific properties" (Bluestone 63; Elliott 218). Elliott notes that the title of Bluestone's opening chapter, "The Limits of the Novel and the Limits of the Film," adapts the title of a much older work of medium specificity theory: *Laocoön: An Essay Upon the Limits of Painting and Poetry* (1766) by Gotthold Ephraim Lessing. Elliott argues that Lessing "applied Linnaean biological taxonomies to poetry and painting, rejecting the sister arts theories that had encouraged their mutual emulation and interchange" in previous centuries (54). Indeed, Bluestone would explicitly refer to novels and films as different "aesthetic genera," incapable of mixing or interbreeding (5). Elliott argues that whereas post-Linnaean, "Darwinian" thinking should have allowed for the development of theories of media that explored hybrid crossovers, Bluestone either consciously or unconsciously sidestepped this possibility. Subsequently, many scholars pushed back against Bluestone precisely by mobilizing theories of hybridity, taxonomical transformation, and biocultural evolution in their discussions of media.

As will already be apparent, however, I will argue that it is just as important to be skeptical of the "Darwinian" or evolutionary approach to media hybridity as it is to be skeptical of Bluestone's "Linnaean" approach to novels and films. Indeed, many theorists of transmediality have demonstrated precisely this kind of skepticism in responses to encroachments on their discipline by biologists. Arguably the most famous of those encroachments was made by Richard Dawkins in 1976, when he threw down the gauntlet to theorists of media and culture with his publication of *The Selfish Gene* and proposed, by analogy with the model of the gene as the unit of biological inheritance, the idea of the "meme" as the unit of cultural inheritance. Dawkins

declared that, just like genes, the defining feature of memes was their ability to “replicate” (251). But, he argued, “just as not all genes that can replicate do so successfully, so some memes are more successful in the meme pool than others. This is the analogue of natural selection” (251). Many media theorists, of course, have challenged this analogy. Henry Jenkins himself, in a 2013 work written with Sam Ford and Joshua Green (*Spreadable Media: Creating Value and Meaning in a Networked Culture*), called Dawkins’ idea of memes as “self-replicating” units of culture “oxymoronic... as culture is a human product and replicates through human agency” (19). While the human exceptionalism of this claim is somewhat uncritical and defensive, this response stands in contrast to many biocultural theorists of adaptation who have been more willing to embrace Dawkins’ argument and its underlying premises.

This is apparent, for example, in one of the most expansive and critically engaged theorizations of cultural adaptation, Linda Hutcheon’s *A Theory of Adaptation* (2012), which explicitly evoked Dawkins’ model of the meme to argue that “successful” adaptations, like successful memes, “survive” and “flourish” (32). Even Kamilla Elliott (2020), in her otherwise incredibly sensitive historicization of the theories used to describe adaptation, seems to rely on genetic and evolutionary paradigms, claiming on multiple occasions that “successful” adaptations “*survive and thrive*” (230; 303). Indeed, while Elliott does not mention memes explicitly, the hangover from Dawkins’ evolutionary theory can still be felt in her account of the history of adaptation and its theorization, as she adopts Hutcheon’s (and implicitly Dawkins’) evolutionary models seemingly without question: “just as adaptation enables older narratives to survive,” Elliott writes, citing Hutcheon, “it also enables older *theories* to survive” (153; emphasis in original). Similarly, she argues elsewhere that “a history of theorizing adaptation reveals recessive theoretical ‘genes’ resurfacing in new historical, political, cultural, and academic

contexts, repeating and varying in them to ensure their *survival*” (14; my emphasis). Indeed, while Elliott does note that the notion of “adaptation is *itself* adapting over time not only in the humanities but also in the sciences,” thereby suggesting an awareness of evolutionary theory as historically situated, she nonetheless continues to rely on Darwin as a major authority for biological and cultural adaptation (273; emphasis in original):

Charles Darwin theorized biological adaptation... as a gradual progress toward perfection. Yet his progressive theory is predicated on mechanisms that return to and carry forward parts of the past: repetitions are as vital as variations to surviving and thriving in new environments when other organisms do not; maintaining advantageous characteristics is as essential to successful adaptation as developing new ones. (273)

Even if such biological metaphors are intended simply to work as an analogy with evolution and genetics (and Hutcheon, as we will see, explicitly argues that they are *not* analogies), I will argue that it is important to historicize these models of variation and survival, just as much as it is important to historicize theories of medium specificity. These scientific paradigms, as we have already begun to see, come with their own attendant biases and assumptions. Indeed, while Elliott notes that Hutcheon and others have argued that “the repetitions and variations of adaptation have been central to the *survival* and *thriving* of arts, media, and narratives,” one would of course have to consider what it might mean for “arts, media, and narratives” to “survive and thrive” in the first place (273; my emphasis). As I will argue below, the measures for “surviving” and “thriving” generally rely either implicitly or explicitly on some kind of idea of “popularity,” which can not only be assessed in multiple different ways but also does not clearly map onto evolutionary models of “success” (which are themselves not

universally accepted by biologists).²⁵ Indeed, we might pause to ask questions like: what would it mean to declare certain artworks or adaptations *unsuccessful*? Has one adaptation of *The Odyssey*, such as *Ulysses* (1922), “thrived” more than others, such as *Contempt* (1963)? Are such adaptations in “competition” with one another (or with anything else) for “survival”? In what circumstances would it even be proper to say that an adaptation did *not* “survive”? To take only the last of those four questions for the moment, it is clear that artworks do not *die* in the same way that biological organisms or even entire species do, and while one might point to certain cultural extinction events like the fire of Alexandria, these clearly demonstrate that the ability to “survive and thrive” has as much to do with technological reproducibility as with cultural popularity (though these are undoubtedly linked, as Benedict Anderson showed in *Imagined Communities*, 1983). Some media forms are just less flammable than others.

In what follows, I will take up some of the ideas raised by the above set of questions in more detail. In so doing, I will attempt to historicize the biologism of adaptation theory, thereby continuing what Gregory Semenza and Bob Hasenfratz have called the “historical turn in adaptation studies” (2015, 6). Of course, the effort to historicize is also what motivates Kamilla Elliott’s far more in-depth account of the discipline, so if it seems churlish to turn to a few missed ideas and undertheorized models in her more comprehensive overview, I do so only to respond to her call for multiple and different historical accounts of the theory and practice of adaptation. In light of this aim, as well as considering Linda Hutcheon’s repurposing of Richard Dawkins’

²⁵ For a classic critique of traditional understandings of adaptation in biology, see Stephen Jay Gould’s “critique against the hegemony of adaptation” in his discussion of the “theory of neutralism—the claim that much genetic change accumulates in populations by genetic drift upon allelic variants that are irrelevant to adaptation, and that natural selection therefore cannot recognize” (2007, 227). More recently, see Nessa Carey’s work on nonfunctional or maladaptive DNA in the field of epigenetics, outlined in *The Epigenetics Revolution* (2011) and *Junk DNA* (2015).

memetics in *A Theory of Adaptation* (2012), I will also examine Patrick Cattrysse's "Evolutionary View of Cultural Adaptations" (2018), the affect theory of John Hodgkins (2013), which borrowed from post-Deleuzian biomaterialism, and, perhaps most importantly, the notion of adaptive "fertility" proposed by Brian Boyd ("Making Adaptation Studies Adaptive," 2017) as a continuation of his work on biocultural evolution. While these are all engaging and promising models for the study of adaptation, I argue that, in most cases, not only have they tended to instrumentalize evolutionary biology in order to naturalize their hermeneutic frameworks, they also have not adequately historicized the biological models that they have taken up. In re-examining those theories, the point is not to "blame" adaptation scholars, as Elliott puts it, "for using the 'wrong' theories" rather than "the 'right' theories" (2020, 6). As Robert Stam argues, there are "Darwinian survivalist overtones in the view that theories can be 'retired,' that they can be 'eliminated' in competition" (*Film Theory*, 2000, 9). The point is rather to try and address the historical processes by which these theories of adaptation have come to overlap with biological discourses and, in so doing, to set up a historically alert analysis of the intersection between theories of adaptation, biocultural evolution, and transmediality that can be taken forward in subsequent chapters. I begin by unpacking both the culturally and the biologically inflected definitions of the term "adaptation" itself.

Close-ups: Evolving Definitions

As Timothy Corrigan has noted, definitions of adaptation in the realm of cultural theory typically approach it from three overlapping perspectives: they consider adaptation as a product, as a process, and as an act of critical interpretation or reception (2017, 23). The distinction between adaptation as a product and a process goes back at least as far as Brian McFarlane's

Novel to Film: An Introduction to the Theory of Adaptation (1996). The pronoun “to” in McFarlane’s title signals his effort to place increased emphasis on adaptation as a process rather than a product. He writes that he employs the “widely used term ‘adaptation’ [to] refer to the *processes* by which... novelistic elements must find quite different equivalences in the film medium” (13). Corrigan, by contrast, maintains both sides of the definition in balance:

As a process, adaptation often describes how one or more entities are reconfigured through their engagement with or relationship to one or more other texts or objects. As a product, an adaptation can designate the entity that results from that engagement or the synthesized result of a relationship between two or more activities. (23)

Interestingly, emphasizing adaptation as a process seems to be more likely to conjure up biological motifs than emphasizing adaptation as a product. Corrigan, for example, refers to “adaptation as an evolutionary process” but describes it in cultural terms as a “product whose relation to a source is based in fidelity or infidelity” (23). This is reflected in Kamilla Elliott’s lexicographical overview, in which she notes that whereas in general the *OED* “presents adaptation as product, process, and a combination of the two,” it “narrows its definition of humanities adaptation to a product” (2020, 181). The *OED* defines a cultural adaptation as follows: “an altered or amended version of a text, musical composition, etc., (now esp.) one adapted for filming broadcasting, or production on the stage from a novel or similar literary source.”²⁶

Of course, as Elliott, Corrigan, and others have pointed out, these definitions frequently overlap. The definitions of adaptation are themselves involved in a constant process of

²⁶ “Adaptation, n.” 4. *OED Online*, Oxford University Press, March 2021, www.oed.com/view/Entry/2115. Accessed 28 March 2021.

hybridization and transformation. Tellingly, scholars have often referred to the “evolving definitions” of adaptation. As Corrigan argues, “because its activities and perspectives continue to evolve rapidly, there cannot be any single or stable definition of adaptation” (34). The definition of adaptation, like adaptation itself, involves crossing taxonomical boundaries. As adaptations work by renegotiating and rewriting earlier texts or sources, so the definition of adaptation is itself constantly being negotiated and renegotiated.

As a result, my definition of adaptation in this dissertation will be necessarily broad. Indeed, many of my case studies, mentioned above, could not be called “cultural adaptations” in the sense defined by the OED above. *Adaptation*, for example, is at best an oblique adaptation of Susan Orlean’s *The Orchid Thief*, and Proust’s *In Search of Lost Time* borrows from sources across the literary and visual arts. Similarly, while Nabokov constantly rewrote other cultural texts and his works have been frequently adapted to the screen, I am more interested in the cinematic and painterly motifs of his novels like *Lolita* than I am in the specific screen adaptations of *Lolita* by Stanley Kubrick (1962) and Adrian Lyne (1997). Peter Greenaway’s films, moreover, are nothing if not a patchwork of multiple adaptations and sources. Rather than functioning as simple adapted products, they meditate on how ideas about adaptation have come down to us through the traditions of biological theory and cultural mythology. By focusing on works such as these, I do not mean to imply that the study of singular, one-to-one adaptations would not be interesting or worthwhile, but I have been drawn to these works because many of them are, in a sense, meta-commentaries on the processes of adaptation across culture and biology.

However, because I employ such an expansive definition of adaptation, I recognize that I run the risk of broadening its scope and diluting its significance. I have tried to mitigate the

effects of this in two ways. First, I have tried to remain conscious of the third definition of adaptation, mentioned above: adaptation as an act of critical interpretation. Many scholars have pointed to the fundamental link between adaptation in art and the act of literary criticism and reception. Josh Sabey and Keith Lawrence (2018), for example, have called for greater attention to be paid to the role of the “critic-as-adapter,” arguing that “viewing adaptation criticism as itself a form of adaptation—and thus of art—may profitably encourage the critic-as-adapter to consider his potential roles as he adapts a given text” (170-71). This is echoed by Thomas Leitch’s understanding of adaptation as a “writerly” enterprise, again borrowing from Barthesian paradigms. Leitch (with a note of biologism) argues that “texts remain alive only to the extent that they can be rewritten” and that “to experience a text in all its power requires a reader to rewrite it” (*Adaptation and its Discontents*, 2007, 12). Recognizing how literary criticism is itself a process of refiguring and representing texts in different media highlights the ongoing crossovers between interpretation and adaptation. I thematize this explicitly in Chapter Three, in which I consider how Nabokov presents the process of cultural creation as an act of critical adaptation, blurring the boundaries between the critic-as-adapter and the adapter-as-critic. Throughout the dissertation as a whole, though, I try to reflect on my own adaptations of the case studies I consider (while recognizing that even the model of the “case study” itself has been questioned by recent scholars—Gregory Semenza and Bob Hasenfratz, for example, argue that it provides “too much ungeneralizable data,” 9). I recognize that the lineage of adaptations that I explore necessarily overemphasizes the question of evolutionary biology, something which is markedly absent from other adaptive works of art and other theories of adaptation.

Second, I try to reflect critically on my definition and theorization of adaptation by addressing how the ideas of biological and cultural adaptation exist within genealogies of thought

that have developed in specific historical contexts. This responds to Simone Murray's (2012) call for adaptation studies to examine "how adaptations come to be, specifically how the various institutional, commercial and legal frameworks surrounding adaptations profoundly influence the number and character of adaptations in cultural circulation" (4). As mentioned above, this forms part of what has been called the "historical turn" in adaptation studies, a turn that I try to extend as much to the biological and evolutionary accounts of adaptation as to the media-theoretical accounts of it. In Chapter One, for example, I historicize a long lineage of proto-evolutionary and bioeconomic theories about nature and productivity that extend back at least as far as Jean-Jacques Rousseau, arguing that these filter into the representations of nature and art that are found in *Adaptation*. In Chapter Two, I place Proust's representation of the media forms of painting, photography, and cinema into dialogue with the late-nineteenth-century theories of biological and cultural evolution developed by Henri Bergson. In Chapter Three, I not only historicize Nabokov's mid-twentieth-century evolutionary paradigms, but I also critique them through reference to Simone de Beauvoir's biophilosophy, produced at around the same time. And in Chapter Four, I explore how parallel discourses in evolutionary theory and medical science throughout the twentieth century have sought to delineate the biological limits of human beings and, specifically, man. In this way, I try to recognize the extended genealogy of thought that links writings about adaptation in nature and art since, as I will now attempt to demonstrate, while the field of adaptation studies has often produced detailed historical accounts of adaptation in culture, it has tended to be less critical of the inherited definitions of adaptation in biology.

An example of the historicization of the process of cultural adaptation can be seen in the work of Glenn Jellenik ("On the Origin of Adaptation," 2017), who provides a "thorough excavation" of the "roots" of adaptation, arguing that "the cultural concept of adaptation is a

critical construction” that arose with what he designates as the “fidelity urge” of the late-eighteenth and early-nineteenth centuries (36). Specifically, Jellenik argues that the concepts of both adaptation and fidelity developed as a response to Romanticism’s emphasis on originality and individual authorship, critical tools that were subsequently then used by literary scholars “to marginalize adaptation” as both a practice and an object of study (37). He argues, however, that rather than investigate this history in detail, many scholars have been content simply to generalize about it. He points, for example, to the work of Philip Cox (2000), who argues that “the adaptation of a narrative text from one medium into another has a long history in western culture” (1), and also to the claim of Linda Hutcheon that “western culture [has a] long and happy history of borrowing and stealing, or, more accurately, sharing stories” (*Theory* 4). In a nominal sense, these accounts by Cox and Hutcheon pay lip service to the fact that the process of adaptation has a history, but in reality, they fail to interrogate that history, locating it simply “in the West—long ago” (36).

In the course of his critique, Jellenik also singles out Colin MacCabe’s (2011) argument that adaptation “has a history as old as narration” (4). Jellenik notes that, in making this argument, MacCabe extends the meanings of adaptation even beyond the spectrum of narrative studies, broadening its scope to encompass the “Darwinian uses of the term” (37). Jellenik argues that MacCabe does this as a means of better distinguishing between this Darwinian understanding of “adaptation as a generally essential human function” and a historical moment in which, for MacCabe, cinematic “adaptation constitute[d] a new chapter” in the understanding of the term (MacCabe 5; Jellenik 37). Jellenik agrees with this distinction, but takes issue with the specifics of MacCabe’s history, arguing that “his historical location of adaptation’s ‘new chapter’ is simply wrong” (37). As mentioned, Jellenik sees the modern conception of adaptation taking root at a

much earlier time, relating it to a “whole set of culturally determining contingencies and emergences” that appeared during the eighteenth century, notably those connected to the establishment of authorial copyright: “the Licensing Act of 1737 and the Donaldson Act of 1774” (38). This critique seems entirely justified, but in failing to query MacCabe’s use of Darwin as the authority that guarantees the claim that adaptation is “a generally essential human function,” he also arguably legitimates the similarly ahistoricist gesture of reifying the so-called natural laws of evolutionary biology. Whether this is done in order to better distinguish cultural adaptation from biological adaptation (as is the case with MacCabe and Jellenik) or as a means of eliding these two fields (as is more commonly the case), this process often fails to account for the fact that, as already suggested, the laws of evolution are far from self-evident and are replete with all sorts of biases, particularly when it comes to matters of adaptation. Ignoring the fact that both biological adaptation in general and Darwinian theory in particular are clearly historicizable, scholars have arguably sought to legitimate their study of adaptation precisely by rooting it both *ontologically* in the so-called natural or “essential” laws of evolution and *epistemologically* in the authority of nineteenth-century science.

In Kamilla Elliott’s (2020) work, this seems to manifest itself in an assumed progressivism regarding the analytical development of the sciences. “Evidence of biological evolution,” Elliott argues, “brought about one of the greatest revolutions in scientific theory, severing it from theology. We need a similar revolution in the humanities—adaptation may well be the mechanism for it” (228). Issuing a call for “divergent thinking,” Elliott cites Thomas S. Kuhn’s history of theorization in *The Structure of Scientific Revolutions* (1962), in which he argued:

In the course of any spell of normal science anomalies accumulate, problems and difficulties which only arise because of the attempt to fit nature into the pattern defined by the existing orthodoxy... Eventually practice rearranges itself around new procedures and new concepts which are thought to deal more adequately with the anomalies... A scientific revolution occurs.²⁷ (11)

The idea of longing for a similar revolution in the humanities seems not only to counter Elliott's otherwise determinedly non-evaluative approach to adaptation theory but also to neglect the clear differences between the structure of so-called scientific revolutions and the recursive re-readings involved in literary and cultural criticism. If Mendel's discovery of the gene led to a revolution that rendered Aristotle's theory of inheritance largely irrelevant to geneticists, the same cannot be said for how later theories of genre challenged Aristotle's *Poetics*. If Aristotle was "wrong" about genres and generation, then he was wrong about them in different ways. From an epistemological perspective, the longing for a scientific revolution seems to demonstrate an anxiety over the fact that we may never find paradigms for understanding cultural adaptation that will be as "accurate" as Darwin's were for understanding biological adaptation. This is, in a sense, a humanist inversion of the "anxiety of evolution," suggestive of a desire to find the same secure ground on which to operate as is thought to be available to scientists.

A similar attempt to ground the definition and study of adaptation in the discourses of biology can also be identified in the work of John Hodgkins, who opens his 2013 study, *The Drift: Affect, Adaptation, and New Perspectives on Fidelity*, with a discussion of the biological

²⁷ I must admit that I have been unable to identify this quote in Kuhn's text, which is cited in Elliott (2020, 228). Elliott cites the 1st edition of *The Structure of Scientific Revolutions* (1962). I have not been able to locate it in the 50th anniversary edition (2012), which is the only one that I have been able to access in current times.

roots of the term “adaptation.” Hodgkins begins by noting a distinction between the way the term was used by Darwin and the way it was used by that other giant of nineteenth-century evolutionary theory, Jean-Baptiste Lamarck. For Lamarck, Hodgkins argues, the term “connoted positive change, an ability to physiologically adjust to one's environment” (1). For Darwin, however, “adaptation suggested survival: the natural selection of genetic traits that, over time, led to greater life expectancy and reproductive success” (1). Thus, for Hodgkins, where the engine behind Lamarck's model was accumulative, the one behind Darwin's model was eliminative. Nevertheless, Hodgkins quickly skates over the nuances between these differences by arguing that there was something “fundamental to both Lamarck and Darwin,” namely the idea that “there is a certain utility to be found in adaptation—that the term by and large indicates an alteration for the better, a modification designed to increase longevity, or efficacy, or suitability” (1).

Although many evolutionary scholars might dispute this emphasis on “utility,” Hodgkins is undeniably correct to assert that the source texts of both Lamarck and Darwin suggest that the modifications which survive and are passed down to future generations are generally those that are most usefully adapted to the environment in which they appear. The long necks of the Lamarckian giraffes and the beaks of the Darwinian finches are the paradigmatic examples in each case. This means, for example, that, in the case of the Cretaceous-Paleogene extinction event, while the land-based dinosaurs did not perish because they were somehow less “well-developed” or less “useful” than the other avian and mammalian species that survived them, they nevertheless did perish because they ended up being less “well-adapted” to the environment that existed after the Chicxulub impactor collided with the earth. This—and this alone—should be interpreted as the baseline sense of “utility” that underwrites much of evolutionary theory, but it does clearly show that, from the perspective of the present looking back towards the past, the

general course of adaptation will appear as if it operated along the lines of “alteration for the better,” as Hodgkins puts it (1).

This shows, moreover, that if Jellenik is right to assume that the term “adaptation” in its cultural sense underwent significant changes during the eighteenth century, then it was in the nineteenth century that it accrued the specifically biological meanings with which it is most readily associated today. Indeed, while the OED records a scientific usage of the term by Robert Boyle with regards to engineering, artistry, and natural philosophy from as early as 1663 (“some curious Artist... knows the use of every Wheel, takes notice of the proportion, contrivance, and *adaptation* altogether”) it also records that this same sense was repurposed in the service of evolutionary biology with the publication of Darwin’s *Origin* in 1859.²⁸ This is evidenced by Darwin’s use of the term in his presentation of his theory to the Linnaean Society, in which he argued that “the most vigorous and healthy males, implying perfect *adaptation*, must generally gain victory in their contests.”²⁹ Thus, as I explore in more detail in Chapter One, Darwin’s usage of the term “adaptation” in *Origin* (as, for example, to describe “the woodpecker, with its feet, tail, beak, and tongue, so admirably *adapted* to catch insects under the bark of trees”) is itself borrowed from what we might think of as the form, *par excellence*, of engineering in biology: namely, breeding (6). Darwin writes: “one of the most remarkable features in our domesticated races is that we see in them adaptation, not indeed to the animal’s or plant’s own good, but to man’s use or fancy” (25). This, Darwin writes, is the “artificial selection” of animals for their

²⁸ “adaptation, n.” 3a. *OED Online*, Oxford University Press, March 2021, www.oed.com/view/Entry/2115. Accessed 28 March 2021. The earliest recorded use (1a) goes back to Roger Bacon (1597), but this is in an alchemical rather than a mechanical sense: “As all things haue proceeded from one, by the meditation of one, so all things haue sprung from this one thing by adaptation.”

²⁹ “adaptation, n.” 3a. *OED Online*, Oxford University Press, March 2021, www.oed.com/view/Entry/2115. Accessed 28 March 2021.

adapted traits as carried out by human beings, and this limited example leads, of course, to his formulation by analogy of the more general principle of “Natural Selection,” the principle by which, in nature, “each slight variation, if useful, is preserved” (50).

As I will argue in the following chapter, this transition from the discourse of breeding in artificial selection to the discourse of evolution in natural selection itself somewhat *naturalizes* the inherited notions of engineering and suitability in the definition of adaptation. It is already clear from this history that Darwin’s use of the term “adaptation” takes at least some of its impetus from older models of mechanical engineering, applies those models to the realm of breeding, and then extrapolates outwards to offer a conception of the so-called natural world. Indeed, this suggests that the evolutionary philosopher Daniel Dennett (1995) is right when he asserts that “the central feature of the Darwinian Revolution” was “the marriage, after Darwin, of biology and engineering” (187). As I will argue, however, that marriage was far from innocent; it relied on an association of biological and scientific thought with the ideals of utilitarian efficiency and technological development central to the European Enlightenment, as well as on the assumption that breeding and reproduction are both necessary and natural functions.

That same marriage, however, seems to be precisely what Hodgkins is drawing on when he tries to reclaim what he calls the “positive” aspects of the biological theory of adaptation for the purposes of a theory of culture (1). Indeed, he argues that, whereas “positivity” about adaptation nowadays abounds in the field of evolutionary biology (itself something of a generalization—Stephen Jay Gould, in fact, has critiqued the “hegemony of adaptation” in the theory of evolution), it is nowhere to be “found in the field of critical theory, specifically film and literary theory, where the word adaptation conjures no such favorable connotations” (Gould, *Richness* 227; Hodgkins 1). Hodgkins argues that, far from seeing adaptation as something

“useful,” critical theory has typically viewed it as “synonymous with violation” (1). He concludes, therefore, with an air of lament: “so much for the utility of adaptation” (2). Seeking to reclaim that sense of utility, Hodgkins argues that we should revalue cultural adaptation as a positive process. While I am in general agreement with the intellectual thrust of this project—what Kamilla Elliott (42) refers to as the need to treat adaptation as a “good theoretical object”—I am nevertheless skeptical of the fact that this tends to result in the promotion of a utilitarian framework for conceptualizing adaptation. This is a feature of several of the theories of cultural adaptation that have reached for biological models, as I demonstrate below. First, though, in the next section, I will show how those theories have also tended to propose that such theoretical shifts will help, as Hodgkins claims, “to steer away from the notion of ‘fidelity’ (to story, to character, to theme) which has anchored so many analyses of adaptive texts over the years” (2). I argue, in fact, that this attempt to shift the theory of adaptation away from the supposedly impoverished realm of “fidelity,” often reveals further anxieties about the study of cultural adaptations.

Fidelity Criticism and the Struggle for Theory

Hodgkins’ idea that adaptation in cultural theory is “synonymous with violation” is taken from Robert Stam, who argued that the language used to describe adaptation is “awash in such terms as *infidelity*, *betrayal*, *deformation*, *violation*, *vulgarization*, and *desecration*” (“Theory and Practice” 3). This language—typically referred to as “fidelity discourse”—has been critiqued by many scholars for promoting a particular moral paradigm of sexual responsibility, one that assumes an ideal of faithfulness to be betrayed and that also assumes the primacy of the so-called original source over the so-called unoriginal adaptation. This is an important point, but as many

scholars have pointed out, dismissing the notion of fidelity is often used as a stand-in for any rigorous account of the rich variety of different theories that abound across the field of adaptation studies. Kamilla Elliott (2020) argues that this leads scholars to perpetuate what she calls the “fidelity myth” of adaptation studies. Referencing Stam, she writes:

In lieu of a theoretical history tracing what scholars have actually written about adaptation, many adaptation critics have substituted a myth that adaptation studies has until now, at the time that they are writing, been wrongly and culpably preoccupied with the ‘ideal of a single, definitive, faithful adaptation’ [Stam, “Theory and Practice” 15] and that this theoretically culpable preoccupation is the chief reason that adaptation theorization is lacking. (16)

This, ironically, represents precisely the kind of “Darwinian” struggle for theory that Stam himself had critiqued elsewhere, as noted above. Efforts to outmuscle older paradigms and “go beyond” the work of others involve projecting an image of other theorists’ work as weak and outdated, thereby valorizing the “new” theory to be deployed. This practice can be glimpsed in a number of different critiques of fidelity in adaptation studies. Dudley Andrew (2012), for example, referred to fidelity as “the most tiresome discussion of adaptation (and of film and literature relations as well)” (68). Similarly, Thomas Leitch argued that fidelity is “a hopelessly fallacious measure of a given adaptation’s value because it is unattainable, undesirable and theoretically possible only in a trivial sense” (“Twelve Fallacies” 161). Leitch has elsewhere framed the overhang of issues of fidelity in the field of adaptation studies in the terms of a hauntology, noting that while fidelity has been “universally attacked,” theorists of adaptation nonetheless “remain haunted” by it (“Crossroads,” 65). Accordingly, Leitch argues, “the

challenge for recent work in adaptation studies... has been to wrestle with the un-dead spirits that continue to haunt it however often they repudiate it” (“Crossroads,” 65).

In response to this, Casie Hermansson (2015) has argued that these metaphors for describing the relation between the field of adaptation studies and the discourse of fidelity bespeak anxiety as much as critique. Hermansson notes that “because it refuses to ‘die,’ fidelity is frequently linked to an immortal vampire or undead spirit that continues to haunt us still; it is routinely figured as the return of the perennially repressed” (149).³⁰ Accordingly, Hermansson argues for a rehabilitated understanding of the role that fidelity criticism has to play in adaptation studies as one among a series of methodologies that each make varying amounts of sense at certain times and in certain places, but that each come with their own assumptions. Indeed, it is worth noting in this regard that, while it may be true that, as Leitch argues, some versions of “fidelity criticism” are “fruitless,” this of course assumes that whatever is “fruitful” is necessarily and inherently better than whatever is “barren,” an assumption that itself relies on particular understandings of (biological) productivity and labor (“Crossroads,” 65).

Hermansson argues that fidelity criticism is often set up as “a straw man against which to propose a ‘new’ analytical approach” (147). This is precisely what Hodgkins purports to do in offering “a new theoretical orientation, a new framework, through which to interrogate and understand the complicated relationship between literature and cinema: namely, affect” (2). This framework conceptualizes adaptation “not merely as a transposition of narrative content from one work to the next, but as a generative drifting of affective forces between works” (2). This concept of “affective drifting” is modeled on a Deleuzian interpretation of Stam’s call for “a new possible

³⁰ In calling attention to this language, Hermansson cites not only Leitch (“Crossroads,” 2008) but also J. D. Connor (2007), Peter Clandfield (2010), and Simone Murray (2012).

language for speaking of adaptations in terms not of copy but of transformational energies and movements and intensities” (Hodgkins, 11; Stam, “Theory and Practice” 10). Stam himself had used this call to promote a model of “intertextual dialogism” in adaptation studies (10). That model, which Stam developed from an analysis of Kaufman’s and Jonze’s *Adaptation*, had specifically employed the biological terms of mutation, evolution, and hybridity:

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’? (3)

Stam’s description, in other words, clearly anticipates Linda Hutcheon’s use of evolutionary models in *A Theory of Adaptation*, which I consider in more detail below. Hodgkins, though, takes Stam’s argument in a different but related direction. He notes that Stam’s attempt to deal with “adaptations in terms not of copy but of transformational energies and movements and intensities” is written in “very Deleuzian terms” (11). Hodgkins, therefore, uses Deleuze to propose a theory of adaptive drift that accounts for how “affective energies are... transmitted from one work to the next, how they are drifting from one medium to another, provoking transformations and becomings in the process” (11).

Note, however, that this move is based upon an apparent appeal to ontology as the ground on which to construct a theory of adaptation (in this case, though, not in explicit relation to evolutionary biology but in relation to a general model of affective intensities). Hodgkins argues that affect theory enables a transition “away from the symbolic” comparison of texts and films

towards what he seems to understand as the real of “affective work” (11; 12). Of course, this turn to the supposedly material reality of affect theory (contrasted with what Hodgkins dismisses as the “vaguely Platonic” sphere of fidelity criticism—assumed to be transcendental and dehistoricized) seems to ignore the fact that even post-Deleuzean affect theory comes with its own set of historicizable assumptions, not least of which is the idea that the real can be instrumentalized in this way to disrupt the symbolic (2). Indeed, Deleuze and Guattari themselves arguably fell prey to this assumption in *A Thousand Plateaus* (1987) whenever they suggested that it might be possible to establish both a politics and a hermeneutics on the basis of a re-imagined ontology, an ontology, moreover, that was framed in post-Darwinian terms as what they called “aparallel evolution” (10).³¹ Perhaps the most celebrated example of this was their account of the rhizomatic pairing of the orchid and the wasp in their introduction to *A Thousand Plateaus*—a pairing that was central to Darwin’s theorization of co-dependent evolution in *Origin*, though his two actors were orchids and bees.³² When it comes to Hodgkins’ theory of adaptation, it is clear that Deleuze’s and Guattari’s account of the wasp and the orchid

³¹ Samo Tomšič, in *The Capitalist Unconscious: Marx and Lacan* (2015), notes that Michel Foucault critiqued this as the “repressive hypothesis” in *The History of Sexuality Vol. 1: The Will to Knowledge* (1998, 15). He argues that this “hypothesis seduced even Deleuze and Guattari” insofar as they focused their critique on a kind of biological vitalism (8). Tomšič provides—to my mind—a particularly compelling deconstruction of this vitalism: “Marx and Lacan reject the simple opposition between negativity and positivity, dead and living labor, abstract structure and concrete experience, structure and genesis. The failure of Freudo-Marxism and other attempts to free the creative potential of unconscious desire and of living labor suggests the conclusion that capital *is* creative potential, that capital *is* Life, and that capitalism *is* a specific form of vitalism. Of course, this does not imply that every vitalism should be denounced as being, in the last instance, a vitalism of capital. It merely strives to problematize the simple and all too comfortable opposition of the ‘bad’ negativity, alienation and lack of being, on the one hand, and the ‘good’ positivity, creative potential and fullness of being, on the other” (7).

³² “I can understand how a flower and a bee might slowly become, either simultaneously or one after the other, modified and adapted in the most perfect manner to each other, by the continued preservation of individuals presenting mutual and slightly favorable deviations of structure.” Darwin, *Origin* (74).

underwrites his analytical framework. I will briefly summarize Deleuze's and Guattari's argument before offering a quick discussion of their deployment of evolutionary biology in the service of cultural theory. Their account of the wasp and the orchid is well-known:

Wasp and orchid, as heterogeneous elements, form a rhizome. It could be said that the orchid imitates the wasp, reproducing its image in a signifying fashion (mimesis, mimicry, lure, etc.). But... at the same time, something else entirely is going on: not imitation but a capture of code, surplus value of code, an increase in valence, a veritable becoming. (10)

This transition from a hermeneutics focused on "imitation" or "copy" to one focused on "increases in valence" obviously underwrites Hodgkins' move to develop an affect theory of adaptation. However, there are problems with assuming that such an interpretative shift can be justified simply by means of an appeal to nature. Indeed, in relation to *A Thousand Plateaus*, it is not self-evidently the case that natural ontologies (whether those based on trees or rhizomes) can be legitimately employed as the basis for constructing a morality, a politics, or even a mode of reading (regardless of how energizing, invigorating, or radical those might be). Stephen Jay Gould's point, mentioned at the start of this introduction, continues to stand: "the factual state of the universe, whatever it may be, cannot teach us *how we should live* or *what our lives should mean*" (2003, xvi). Indeed, it is telling that Richard Dawkins should have used similar examples of "aparallel evolution" in his theory of *The Selfish Gene* (1976). One of the examples that Dawkins used was viruses, whose ability to spread and transform other bodies allows them to have broad, extended effects on different organisms, challenging evolutionary models of descent and inheritance:

Viruses may well... have originated as collections of breakaway genes. If we want to erect any distinction [between different types of gene transfer], it should be between genes that pass from body to body via the orthodox route of sperms or eggs, and genes that pass from body to body via unorthodox, 'sideways' routes. Both classes may include genes that originated as 'own' chromosomal genes. And both classes may include genes that originated as external, invading parasites. (319)

This model, in which Dawkins suggests that human beings are "colonies of viruses" (237), almost exactly recalls Deleuze's and Guattari's account of viruses in a passage that immediately follows their description of the orchid and the wasp:

Under certain conditions, a virus can connect to germ cells and transmit itself as the cellular gene of a complex species; moreover, it can take flight, move into the cells of an entirely different species, but not without bringing with it 'genetic information' from the first host. (10)

For Deleuze and Guattari, this was the basis for a novel approach to both hermeneutics and ontology, an approach that then went on to ground certain models of biomaterialist affect theory, of which Hodgkins' theory of adaptation would be one example. Deleuze and Guattari argue that their same argument about "aparallel evolution" in viruses, wasps, and orchids "applies to the book and the world: contrary to a deeply rooted belief, the book is not an image of the world. It forms a rhizome with the world, there is an *aparallel evolution* of the book and the world" (11; my emphasis). However, it is telling that whereas Deleuze and Guattari thought that their models would overthrow old "evolutionary schemas" in the theory of both nature and culture, Dawkins' similar theory merely reinscribed what he referred to as the general evolutionary "law of *survival of the stable*" (15; emphasis in original). Like Deleuze's and

Guattari's theory, Dawkins' idea of "integrated multi-cellular organisms" that are "in principle extended and unbounded," which he developed in his later work *The Extended Phenotype* (released in 1982, almost contemporaneously with *A Thousand Plateaus*) is, as Donna Haraway has noted, "a remarkable statement of interconnectedness" (Dawkins, *Phenotype* 404; Haraway, *Simians* 216). But, Haraway remarks, it is connectedness "of a very particular kind, one that leads to theorizing the world as a vast arms race" (217). "An animal," Dawkins writes, "will not necessarily submit passively to being manipulated [by viruses], and an evolutionary 'arms race' is expected to develop" (90). Such arms races, for Dawkins, often develop as "evolutionarily stable" strategies: "we do not have to imagine an oscillation. There may, instead, be an evolutionarily stable endpoint to the arms race; stable, that is, until an environmental change shifts the relevant costs and benefits" (102-3). Thus, what produced a radical new ontology for Deleuze and Guattari simply resulted in a repetition of the same for Dawkins. All of which is to say that it is not necessarily the case that reaching for "a new possible language for speaking of adaptations in terms not of copy but of transformational energies and movements and intensities" will necessarily do away with the older political and economic inheritance of biological science when that science is applied to the study of culture (Stam, "Theory and Practice" 10). In assessing how such evolutionary theories are deployed, however, I believe that we can identify which elements of biological and cultural adaptation they bring to the fore, thereby providing a more nuanced understanding of the historical and conceptual entanglement between adaptation in biology and adaptation in culture.

This should demonstrate that I certainly do not mean to imply that Hodgkins' and Stam's paradigms are of no theoretical value. Again, the point is not to stage theoretical inquiry as itself an evolutionary "arms race," a battle for the "survival of the fittest." Clearly, Hodgkins' affect

theory and Stam's model of "intertextual dialogism" both offer engaging directions in which to take the study of adaptation. Indeed, a benefit of both of these approaches seems to be that they allow for us to conceptualize adaptations that hybridize multiple forms and combine multiple sources, going beyond any one-to-one comparison of adaptations and their source texts, an approach that has greatly informed my own.

It is, in fact, precisely for this reason that Peter Lev (2017) has issued a curiously moralistic warning against the broad frameworks of intertextuality employed by Stam, arguing that intertextuality is a "useful idea that should not be taken to extremes" (662). Lev claims that, while it "is true that any film absorbs a number of influences... the source text (credited by the film, with rights purchased by the production company) has a significant influence on the final product" (662). Tellingly, though, Lev's argument reveals as much by the limits it sets as by the content of its actual critique. Indeed, not only does it somewhat constrain adaptation to the intersection between texts and films (and, specifically, to the kinds of adaptations that are produced by a "production company" within what is presumably a Hollywood system), but it also assumes a kind of hierarchy among source texts that is not necessarily borne out by the films that Lev himself addresses. For example, Lev explicitly mentions *Adaptation* in his discussion, for which the "significant" source text would presumably be Susan Orlean's *The Orchid Thief*, and for which one of the many not-quite source texts would be *The Portable Darwin* (1993), a summary of Darwin's writings edited by Duncan M. Porter and Peter W. Graham. This would seem strange, though, given that both books are displayed, their texts are both quoted, and their authors are both featured within the film. While the film tracks Susan Orlean's project of writing *The Orchid Thief* and Charlie Kaufman's project of writing an adaptation of *The Orchid Thief*, it also tracks Darwin's project of writing *Origin*, featuring cut-scenes of all three authors sat at their

desks as they work. Moreover, Darwin's role is greatly expanded in *Adaptation* compared to *The Orchid Thief*, and although Darwin is fleetingly referenced and at one point quoted within Susan Orlean's book, that quotation comes from *Orchids* not from *Origin*. In fact, *Origin* itself is never mentioned by Orlean, and no text by or about Darwin is listed in Orlean's bibliography of "helpful" texts at the back of her book (283). As I argue in the following chapter, however, *Origin* and the inheritance of evolutionary theory arguably hold as much of an influence over *Adaptation* as *The Orchid Thief* does, particularly as the latter seems to disappear behind Kaufman's evolutionary fantasies towards the end of the film, as I discuss in more detail below. In other words, while Lev's argument may make sense for certain films produced at a certain times, questions about which text is the main source and which text(s) the peripheral one(s) can get much more complicated than his paradigm would seem to allow. Again, in this case, recognizing which aspects of adaptation are foregrounded by which particular theories seems to be an important way of maintaining a historically and theoretically alert approach to the definition and theorization of adaptation.

In light of this, then, it seems worth noting that the tradition of intertextuality itself also bears evidence of a certain biologism, as demonstrated by the largely taxonomical approach that it took to the study of textual relations. This is apparent even from Julia Kristeva's original use of the term "intertextuality" in her discussion of post-Bakhtinian semiotics. Kristeva argued that language operates simultaneously at the level of the "genotext" and the "phenotext" (thereby borrowing the biological distinction made between genotypes and phenotypes, "Revolution" 120). The former, for Kristeva, referred to the level at which the text creates its meanings, and the latter referred to the level at which the text materially appears. Moreover, Gérard Genette (1997) conserved something of this biological inheritance in his development of a taxonomy based on

intertexts, intratexts, paratexts, hypotexts, and hypertexts, which he grouped together under the collective name of “transtextuality,” used to refer to “all that which puts one text in relation, whether manifest or secret, with other texts” (1). There is not space to treat in detail here all of the various nuances of Genette’s taxonomy of textual relations. Combined together, they serve as a useful grammar for theorizing adaptation and transmedia crossovers. As Linda Hutcheon (*Theory* 32) notes, however, particularly insofar as they have been taken up in adaptation studies, they have tended to be limited by their emphasis on narrative, which has largely determined the kinds of media that they have been used to theorize: namely, novels and the film adaptations of novels. Thus, while taxonomies and definitions are somewhat essential for the process of theorization, it is important to recognize what their paradigms obscure as much as what they reveal.

Given the bio-taxonomical roots of “intertextuality” and “transtextuality,” though, it is telling that Hutcheon herself should have reached for biological models in trying to expand them. This suggests an unanticipated shared network between the very diverse ways in which Hutcheon and Hodgkins answered Stam’s call for a “new language” in adaptation theory (“Theory and Practice” 10). Arguing that Stam’s models of “transtextuality” and “dialogism” struggled to encapsulate the various ways in which film and other media can interact with text, Hutcheon, as mentioned, proposed borrowing Dawkins’ theory of the “meme” to explore how—across a wide array of different media forms—adaptations undergo a “process of mutation or adjustment... to a particular cultural environment” (Dawkins, *Selfish Gene* 245; Hutcheon, *Theory* 32). As mentioned, Hutcheon explicitly adopted Dawkins’ theory of cultural evolution, arguing:

Adaptation, like evolution, is a transgenerational phenomenon. Some stories obviously have more “stability and penetrance in the cultural environment,” as Dawkins would put it [in *The Selfish Gene* 193]. Stories do get retold in different ways in new material and

cultural environments; like genes, they adapt to those new environments *by virtue of* mutation—in their “offspring” or their adaptations. And the fittest do more than survive; they flourish. (*Theory* 32)

As noted above, historicizing Dawkins’ theory will be part of the following chapter. For now, though, I simply want to highlight that Hutcheon is clearly invested in deploying Dawkins’ models in the service of cultural theory, since she has insisted on this argument on multiple occasions. Indeed, elsewhere in an essay written in partnership with a biologist, Gary R. Bortolotti (2007), she writes even more strongly of the connection between biological and cultural adaptation. Seemingly concerned that their work will be dismissed for treating cultural evolution as simply an analogy for biological evolution, Bortolotti and Hutcheon insist pre-emptively that there is “a homology—not an analogy, not a metaphoric association—but a homology between biological and cultural adaptation” (444). This is intended to “avoid the problems outlined by Gillian Beer” regarding both Darwin’s and his inheritors’ tendency to argue by way of analogy (Beer, *Dawkin’s Plots* 9; Hutcheon and Bortolotti 444). I must say that I myself find it rather difficult to see how a “homology” is in fact tangibly different from an “analogy.” Indeed, the very fact that Hutcheon and Bortolotti should write that “narratives” are “*like* genes” seems to suggest that some form of analogical reasoning underwrites their argument (447; my emphasis). Moreover, Hutcheon and Bortolotti seem to repeat the familiar critical gesture in relation to fidelity discourse when they claim that their model makes it possible to “move beyond” fidelity:

Stories, in a manner parallel to genes, replicate; the adaptations of both evolve with changing environments. Our hope is that biological thinking may help us move beyond

the theoretical impasse in narrative adaptation studies represented by the continuing dominance of what is usually referred to as ‘fidelity discourse.’ (444)

Thus, Hutcheon and Bortolotti, like Hodgkins, reach for biology as a way of avoiding the theoretical implications of fidelity. As I will demonstrate now, their call for “biological thinking” has been taken up by other theorists of adaptation. I will argue, however, that the biological paradigms that those theorists have employed have tended to rely on certain economic and naturalist essentialisms. These cannot be ignored if we want to provide a critical assessment of adaptation at the interface between culture and biology.

Biocultural Adaptation Studies

By far the most prominent among the scholars who have responded to Hutcheon’s call for “biological thinking” is Brian Boyd, the theorist of biocultural evolution, mentioned above. Boyd praises Hutcheon for her biological emphasis but argued that her formulation “does not go far enough” (2017, 587). Boyd seeks to move away from the model of the “meme” that structures Hutcheon’s account and to construct what might be called a political economy of biocultural adaptation. Boyd’s model operates according to three main principles: “problem-solving, costs and benefits, and attention” (590). Using these principles, Boyd explores an overlapping biocultural network that exists across the works of Charlie Kaufman, Vladimir Nabokov, and Marcel Proust. He outlines his economy as both an advance on Hutcheon’s theories and as a further rejoinder to the discourse of fidelity in adaptation studies.

Boyd begins by noting the various ways in which adaptation has been shown to occur in nature. He points to “genetic mutation, direct gene transfer... endosymbiosis... epigenesis... sexual recombination, and hybridization,” as well as “social learning,” which he defines as the

transmission of knowledge or behaviors from one member of a particular species to another (590). Boyd does not, however, follow up on any one of these evolutionary models in detail. Rather, he argues that:

Whatever evolutionary models ultimately prove most productive in helping to explain culture, all models agree that in biology, successful new elements build on (*adapt*) existing design in order to solve new problems (to become *adaptive*). In thereby creating new opportunities, they pose the additional problem of how to make more of the new adaptations. Evolution requires a degree of fidelity, or existing design would be lost. But if there were only fidelity, life would have evolved no further than the first self-replicating organism—which would not have been in a position to solve the new problems generated by its own successful self-replication. Rather, the process of biological adaptation forgoes exact fidelity to solve new problems, but in doing so, necessarily creates new problems that invite new solutions. The process is fertile, rather than merely faithful. Adaptation in art follows the same pattern: redeploying existing design to create new solutions that by their very existence introduce new problems from which further new solutions may emerge. (591)

Boyd's model is certainly suggestive. True to its own account, though, it introduces new problems by way of its solutions. These crystallize around the issue of "fertility," which (again repeating the familiar critical gesture), Boyd claims to be a "lusher landscape" than the discourse of "fidelity" (587). Incidentally, it is not particularly clear how this is intended to function as an "advance" on Hutcheon's theory. Indeed, in *A Theory of Adaptation*, Hutcheon had already characterized the process of adaptation as involving both "fidelity" and "fecundity," identifying the latter as one of the "three qualities needed for high survival" when it comes to adaptations:

In Richard Dawkins' terms, 'some memes are more successful in the meme-pool than others'... If so, his list of the three qualities needed for high survival value is of interest to a theory of cultural adaptation. The first is clearly longevity, though it is the least significant; what is more important is *fecundity*. For adaptations, the sheer number of them or the proven appeal across cultures might qualify as evidence of this quality. The third is 'copying-fidelity'... some copying-fidelity is needed, in fact, precisely because of the changes across media and contexts. (167)

If there is a difference between Hutcheon's and Boyd's analyses, therefore, it is in Boyd's extension of the discourses of biocultural adaptation beyond the boundaries of "narrative," to which Hutcheon and Bortolotti explicitly limit it ("instead of Dawkins' general concept of memes as ideas, we want to substitute narratives, because of the ubiquity and persistence of their adaptations," 447). Boyd's model of adaptive fertility seems intended to encapsulate not just the analogous or homologous processes by which stories and organisms evolve, but the complex transformations of both nature and culture across what Donna Haraway might call, albeit in a very different theoretical register, "naturalcultural assemblages" (*Staying* 38). This is evidenced by the comparisons that Boyd is able to draw between Nabokov, Proust, and Kaufman, which I will briefly consider now.

In his analysis, Boyd focuses on the eponymous heroine of Nabokov's novel, *Ada, or Ardor* (1969). In this novel, Ada is an accomplished lepidopterologist and artist, much like Nabokov himself. She spends her time breeding new species of butterflies and painting pictures of orchids. This is used to introduce themes of hybridity, creativity, and fertility into the novel, which tie into the overall premise of its plot, a love story between two twins who suffer from sterility on account of their family's inbreeding. Boyd argues that the novel's thematic concern

with the themes of evolution and adaptation is replicated in *Ada*'s own adaptations and transformations of earlier works of art, notably Proust's *In Search of Lost Time*. Boyd notes that, just as in Proust when "Swann and Odette use the phrase *faire cattleya* as a private code for 'making love,'" Nabokov "has Ada breed caterpillars, including 'the noble larva of the *Cattleya Hawkmoth* (mauve shades of Monsieur Proust)" (Boyd, "Making" 602; Nabokov, *Ada* 56). In this moment in Nabokov's novel, Ada produces an entirely new species of butterfly through the artificial crossbreeding of insects. And this evolutionary process is complicated even further by the fact that what results from this interbreeding is an insect that takes its name from an orchid: the *Cattleya Hawkmoth* that has spread, merged, and metamorphosed across Proust's and Nabokov's novels. In this way, the seemingly natural process of fertilization is spun through the intersecting worlds of life and art to a dizzying extent: what emerge from the artificial interbreeding of lycaenids are the petals of a literary orchid-butterfly. Boyd proposes the model of "fertility" to help us trace the transformative adaptation of this orchid across the biocultural web shared between Nabokov and Proust. In his concluding remarks on Nabokov's novel, Boyd argues:

Ada's complex and multiple adaptations and hybridizations of art and nature, of page, stage, screen, and painting, suggest that the more exactly you know your world, or the world of art, the more you can transform it as you wish. The more you learn to go beyond yourself, the freer you are to find yourself and the more fecund you can be. (602)

Boyd uses this analysis to launch a discussion of the "fertile" processes of biocultural evolution in Charlie Kaufman's *Adaptation*, arguing that the film "resembles *Ada* not only in spotlighting orchids but also in being meta-adaptational and in addressing both fidelity within adaptation and the creative fertility found in building on prior design" (603). However, despite

this engaging comparison, there do seem to be several problems with this notion of “creative fertility,” problems related to gender, sexuality, agency, and economics.

First, with regard to gender, it is important to note that fertility (as much as fidelity) is differentially distributed across sexes and genders within the spheres of human and non-human nature. This is the case even without taking into account the sociological asymmetry of reproduction in the more typically human realms of economic and cultural (re-)production. From a human perspective, the works of two very different feminist theorists, separated by seventy years, Simone de Beauvoir (in *The Second Sex*, 1949) and Sophie Lewis (in *Full Surrogacy Now*, 2019) both make this point in their discussions of gestational labor. Beauvoir, for example, argues that “contrary to an optimistic theory that is so obviously useful socially, gestation is tiring work that offers woman no benefit as an individual but that demands serious sacrifices” (42). In even more polemical terms, Lewis notes that, “biophysically speaking, gestating is an unconscionably destructive business” (1). By presenting a supposedly neutral model of “creative fertility,” however, which seemingly is intended to extend across the entirety of the spheres of human and non-human nature and culture, Boyd arguably obscures the material realities of fertility and sexual reproduction, specifically gestational labor. This is all the more suspect given that, as I argue in Chapter One, a considerable amount of biocultural evolutionary theory of the late twentieth century has been focused on the asymmetrical distribution of fertility across sexed organisms, an asymmetry that has then been used to reify gender hierarchies. The division of reproductive labor and the various fantasies of cultural production that it has inspired must be taken into account, I argue, in any theoretical framework that purports to base itself upon fertility. Indeed, it is notable that the entomological creations detailed in Nabokov’s *Ada* arguably obscure the materiality of gestational labor across biology and culture precisely because *Ada*’s *Cattleya*

Hawkmoth is an example of genetic engineering, reliant on *in vitro* fertilization and technologized reproduction. It seems to me, however, that it is a very long way to go from a restricted example of hybrid breeding such as this to a generalized economy of biocultural fertility. Such a move, in fact, simply repeats the one made by Darwin in his transition from artificial selection to natural selection in *Origin*, mentioned above.

Second, the discourses of fertility and fecundity are also somewhat heteronormative. Although notions of fertility could be expanded to include asexual forms of reproduction, it is telling that the texts that Boyd explores seem to be coordinated around anxieties about the limits of humanist, heterosexual reproduction. Indeed, this is a central aspect of the representation of orchids in Proust's *In Search of Lost Time*, though notably not in relation to the lovemaking of Swann and Odette that Boyd discusses. Rather, this becomes an issue in the more extended treatment of the theme of orchids in *Sodom and Gomorrah*, a text that, according to Lee Edelman (2004), problematizes the very idea of "reproductive futurism"—the term that he uses to describe the heteronormative system of values by which society assures the continuation of cultural and biological reproduction in "the cult of the Child" (2; 19). A version of reproductive futurism, I would argue, is implicit in Boyd's model of fertility, and it can also be identified in Hutcheon's account of adaptation as a "transgenerational phenomenon" (*Theory* 32). In Chapter Two, I will have occasion to switch the analysis of Proust from its focus here on the heteronormalized model of fertility connoted by Swann and Odette (for whom *faire cattleya* leads precisely to the production of a child, Gilberte) towards the much broader discourses of non-heteronormalized reproductivity that are operational in the novel. In relation to Boyd's analysis here, though, we can say that while fertility does not necessarily connote heterosexual reproductivity in and of itself, without a careful consideration of the different ways in which fertility is or is not

heteronormatively organized, it is impossible to argue for its wholesale application as a metric for the study of adaptation.

Third, Boyd's account also seems to make use of a problematic model of agency. Far from suggesting a diverse enterprise of biocultural adaptation, Boyd suggests that it is purely on account of Nabokov's singular artistic capabilities that his adaptation is able to "succeed." Boyd suggests that Nabokov, by applying the tools of modern entomology and artistic design, is able to work biocultural miracles: "the more you learn to go beyond yourself, the freer you are to find yourself and the more fecund you can be" (602). There is, in fact, arguably a gendered form of erasure in that very claim, which suggests that Nabokov really needs no one but himself to engage in an immaculate self-fertilization. What this implies, though, is that for Boyd it is the molecular biologist huddled over his microscope who is the hero of adaptation, rather than adaptation itself. If for Boyd, in other words, *Ada* is a beautiful monster, then it is a monster of so-called science rather than so-called nature; Dr Frankenstein is Nabokov's forebear. As the above discussion of the post-evolutionary inheritance of *Frankenstein* suggests, however, this reflects not so much a purely natural, biological, fertile process of reproducing nature, but rather a quite precise effort to tame nature, to overcome it and control it. As I will argue in Chapter Three, this representation of the agency of the adaptive author is in keeping with Nabokov's own self-fashioning across his other works, in which he frequently portrays his narrators and characters as maximally skilled artists, capable of shaping and controlling nature through their adaptations.

The final problem with Boyd's model of fertility is its reliance on utilitarian economics. Indeed, for all its investment in an understanding of art at the boundary between biological and cultural evolution, the idea of "creative fertility" is clearly energized by a worldview that sees a relentless struggle for survival at the heart of the ecological, cultural, and financial economies.

Boyd argues that reproduction and adaptation in both life and art are subject to the double pull of costs and benefits; adaptations occur and recur only because they make things easier:

Sociality has evolved in many distinct lineages because it can offer less costly solutions to common problems—like finding food, or avoiding becoming food for others—so long as the savings outweigh the costs, such as the risk that groups may deplete resources faster or attract more predators... In artistic adaptation, as in other social and cultural behavior, costs and benefits play a key role. Creating novel design is costly in terms of search time, effort, and the frequent failure to earn the positive response of attention and interest that reward artists in terms of improved status and resources. Adapting ready-made design massively reduces search costs, even for the most creative, and promises greater benefits if a generic form or a particular template has already proved it can attract an audience. Even Shakespeare, the most inventive of writers, adapts the conventions of his time (regularly enriching them at all points), from blank verse to genres like comedy, tragedy, and history. Following the norms of his time, he adapts specific stories and characters from chronicles, prose and verse tales, and pre-existing plays, concentrating, extrapolating, duplicating, or inverting what he finds through the device of multiple plots, itself an established theatrical practice of his time. (2017, 592-93)

Let us leave aside, for the moment, the largely unverifiable and intentionalist claim that Shakespeare adapted stories in order to make life easier for himself. For now, let us simply note that there is clearly an assumption within Boyd's argument here that biocultural adaptation necessarily occurs because it involves less risks and is less costly. In extrapolating from this assumption, we would have to conclude that art is never anything more or less than the most efficient tool for survival within a hostile biocultural marketplace, a weapon in the never-ending

war for money, attention, dissemination, and domination. *Bellum omnium contra omnes*.³³ In the following chapter, I will highlight the overhang of this Hobbesian discourse in *Adaptation*, which presents a biocultural ecosystem in which, in both art and nature, only the fittest survive through adaptation.

For now, however, I would like to note that, more generally, these same premises seem to underlie other recent biocultural studies of adaptation. In what he refers to as a supposedly neutral, “descriptive-explanatory” model of evolutionary adaptation, for example, Patrick Cattrysse (2018) has claimed that “if the aim of an adaptation process consists in changing a source element in order to make it fit better into its new hosting environment, then it follows that a ‘good’ or ‘successful’ adaptation refers to the process and its end-result that achieve just that” (“Evolutionary View” 51).³⁴ In this argument, as in Boyd’s and Hutcheon’s and Bortolotti’s, success is figured as “survival,” which seems to mean either temporal longevity, geographical spread, or an ability to attract the precious and supposedly universal commodity of “attention”. As I mentioned above, a similar idea can also be identified in Kamilla Elliott’s argument that “some adaptations succeed, survive, and thrive; others fail and die” (230).³⁵ In Cattrysse’s model, this fundamentally *quantitative* means of assessing adaptations is argued to provide a means of replacing the value judgments that have coalesced around other more *qualitative* analyses (be they phrased in terms of fidelity, intertextuality, or something else). Accordingly, Cattrysse

³³ This classic description of life in the so-called “state of nature” comes from Thomas Hobbes. In his *Leviathan* (1651), Hobbes writes of a “war of everyone against everyone” and of a “perpetual war of every man against his neighbor” (84; 138). The Latin phrase appears in the preface to *De Cive* (1642).

³⁴ See also Cattrysse’s more extended study, *Descriptive Adaptation Studies: Epistemological and Methodological Issues* (2014).

³⁵ Elliott explicitly cites both Darwin and Huxley here: “Scientists have learned a great deal about the principles of adaptation from failed adaptations and mutations—so too can humanities scholars. Thomas Henry Huxley wrote: ‘For the notion that every organism has been created as it is... Mr Darwin substitutes... a method of trial and error’” (2020, 230).

argues that by “following an evolutionary definition of cultural adaptation” and simply tracking which adaptations succeed “in a descriptive-explanatory approach... scholars could assess quality in a less judgmental manner” (52). This claim is echoed by Hutcheon and Bortolotti, who argue that adaptation scholars should follow the model of biologists who “do not evaluate the merit of organisms relative to their ancestors; all have equal biological validity” (446). This is doubtless a valiant attempt to avoid the pitfalls of value judgments within the realm of adaptation studies, but at the same time it seems to engage in an analytical sleight of hand. For these theorists mention that the biological theories they refer to are connected to specific histories and ideologies, before going on to dismiss their relevance for the purposes of their own analyses. Hutcheon and Bortolotti, for example, claim:

We are aware of the ideological/epistemological/methodological critiques of science in general and biology in particular; nevertheless, we see significant benefits to using this homology heuristically to open up the discourse of adaptation studies to new perspectives. Like literary theory, evolutionary theory is not a natural ‘given,’ but as human constructions, perhaps together they can help us make sense of a shared interest in repetition and change. (446)

This is a valuable caveat, but it is not really addressed in any detail, as even the slightest attention to any of those “ideological/epistemological/methodological critiques” would demonstrate that to quantify “success” (as Boyd, Cattrysse, Hutcheon, Bortolotti, and others all do) in terms of an organism’s or a cultural artefact’s longevity through time or proliferation through space is to insist very precisely upon a system of values that prizes productivity, growth, domination, utility, dissemination, and attention above all else. For clearly, to return to Boyd’s discussion of Shakespeare adaptations above, these have achieved their widespread propagation

across the globe as much by dint of the capital held by Britain and the Bard within the economic and cultural world-systems as by the fact that Shakespeare was somehow “naturally” both the “most inventive” and the most adaptive (and adaptable) of authors. Indeed, to argue that the latter is the *natural* reason for the former is simply to dress up economic and political forces in the garb of supposedly essential and eternal biological laws. It is, as such, very actively to de-historicize the notion of the “survival of the fittest,” ignoring the fact that, as has long been known, it depended on a model of political economy that was specific to western capitalism and reproduced an understanding of individual struggle that had been endemic to Enlightenment thought from Hobbes through to Rousseau and Malthus.³⁶

In response to this, therefore, in the next chapter I historicize this lineage of thought in the course of a re-reading of the biocultural evolutionism of *Adaptation*. I argue that, rather than providing an ahistorical depiction of the forces of biological evolution that can then be unproblematically appropriated in the service of a theory of culture, *Adaptation* highlights quite precisely the dangers of positing *as real* the utilitarian dream of a maximally efficient world of biocultural reproduction. That danger manifests itself in Charlie Kaufman’s repeated fantasies regarding the series of women whom he encounters within the film, women that he then molds to fit the heteronormative ideal of reproductivity on which the utilitarian and human-centered models of evolution are based.

Subsequently, in Chapter Two, I examine how the narrator of Proust’s *In Search of Lost Time* deploys particular understandings of both evolution and media adaptation in his

³⁶ The phrase, “survival of the fittest,” which I have tried to avoid overusing throughout this dissertation, is in strict terms only obliquely associated with Darwinian evolution. It was first used by Herbert Spencer in his *Principles of Biology* (1864), in which he wrote: “This survival of the fittest, which I have here sought to express in mechanical terms, is that which Mr. Darwin has called ‘natural selection,’ or the preservation of favored races in the struggle for life” (444).

representation of Albertine. I argue that Proust combines the evolutionary discourses of the nineteenth century with the discourses of new media technologies (specifically photography and film) that developed at around the same time. I trace how Proust's narrator represents Albertine as resisting "capture" by these new technologies, but I argue that this has more to do with his anxiety over her queer sexuality than with any concern for the reality of her actual "life."

Chapter Three continues this attempt to re-read canonical authors in the light of a historicized model of biocultural theory, offering a reconsideration of the work of Nabokov. Nabokov frequently celebrated what he referred to as the "non-utilitarian delights" of nature, thereby suggesting a contrast with the utilitarian evolutionary theories that I will cover in Chapter One (*Speak Memory* 125). Rather than trying to excuse what critics have referred to as Nabokov's "heterodox beliefs about evolution," however, I use them as an opportunity to explore his political and philosophical assumptions about the power of the supposedly "evolved" human intellect (Mallet 235). I argue that his engagement with evolutionary theory generally led him to aestheticize particular forms of power and human agency, thereby manifesting his anxieties about the status of man in relation to nature.

Finally, in Chapter Four, I consider biocultural evolution and adaptation in the work of Peter Greenaway. By way of an analysis of Greenaway's *A Zed & Two Noughts* and his short film *Darwin*, I argue that Greenaway deconstructs the grand narrative of evolution, arguing for a determinedly playful, postmodern, ateleological and non-utilitarian understanding of biology. Against this background, Greenaway charts how artistic adaptation emerges as coterminous with an ethically suspect model of scientific progress, involving the sacrifice of various forms of life towards a privileged ideal of evolutionary development. Greenaway seems to identify this as a precise limit for evolutionary theory, which *A Zed & Two Noughts*, in many ways, tries to move

beyond. In so doing, however, the film can only reach for a fantasy of hyper-fetishized female fertility and trans-species hybridity that ultimately roots the possibilities for biological and evolutionary renewal within the female body.

As will be clear from this overview, much of the remainder of the dissertation will be engaged in either implicitly or explicitly challenging some of the claims made by Boyd in his essay on Proust, Kaufman, and Nabokov. The fact that my dissertation grew out of a response to Boyd's work has meant that it has largely remained focused on the authors he discusses, while also placing those authors into dialogue with Peter Greenaway. Although it may seem rather parochial to devote several chapters to figures discussed in a single essay, my aim is precisely to denaturalize the accounts of them provided by biocultural theorists of adaptation. Moreover, I tried to show at the start of this introduction that the biological discourses and evolutionary anxieties present in the works I discuss can also be identified in a much broader array of texts, both critical and creative, across the twentieth and twenty-first centuries. One reason for my interest in my particular case studies, as mentioned, is that they actively thematize those discourses and anxieties, thereby functioning as meta-commentaries on the process of adaptation itself.

That said, it cannot be denied that the texts and films I focus on form part of a decidedly white, male, western canon. My dissertation cannot escape this limitation. It is a limitation, moreover, that the works themselves compound, as they tend to embrace that canon uncritically, frequently adapting the same set of texts and sources, quoting and repeating the same anxieties and prejudices. In my analysis, I have tried to be alert to that process, denaturalizing and demystifying their generalized claims about biology, evolution, nature, culture, art, and adaptation. I recognize that I have not always been successful in this aim, and my failure has only

increased my respect for the scholars and theorists of adaptation on whose work I have tried to build. Kamilla Elliott closed her recent account of the discipline of adaptation studies with the following admission: “I have tried to adapt to adaptation and to write adaptation in its own image, fully aware that I am failing, while knowing that I must continue to try” (307). I feel a considerable amount of affinity for that Beckettian sentiment, and it is in that spirit that I now set out on a rereading of one of the discipline’s own canonical texts: *Adaptation*. I hope that even if I fail to offer a complete account of the overlapping discourses of biological and cultural evolution contained within it (and within the other texts I address), I will nonetheless point the way towards a critical reflection on those discourses, thereby offering a small contribution to the ongoing, rich effort to theorize adaptation across biology and culture.

CHAPTER ONE

THE FANTASY OF EVOLUTION IN A FILM ABOUT FLOWERS

Nicholas Cage is masturbating. He is interrupted by Nicholas Cage. The first Cage is Charlie Kaufman, the second his twin brother, Donald, in the 2002 film, *Adaptation*, directed by Spike Jonze. At this particular moment, Donald is returning from a screenwriting seminar. He asks his brother: “Hey, you wanna hear my pitch?”

Charlie, annoyed (perhaps understandably), fires back: “Go away, god damnit!”

To which his brother, crestfallen, replies: “I’m just trying to do something.”

The exchange contains a microcosm of the film’s bio-sexual, political, and aesthetic economies, all of which hang precisely on what it means to be *doing* something (or, indeed, someone). Donald, attending a screenwriting seminar and engaged in a sexual relationship with a makeup artist (played by Maggie Gyllenhaal), is out there “trying to do” it, in every sense of the word. Charlie, by contrast, lying in bed, fantasizing about having sex with a waitress (Judy Greer) at an orchid show rather than writing his screenplay, is doing nothing at all. Or, at the very least, he is doing nothing *productive*.

The moment establishes a distinction between the closed, isolated and unproductive environment of Charlie’s bedroom, and the open, interactive and productive world outside it. The threshold between those spaces organizes the two central and connected dilemmas of the film. First, how to get Charlie out of his bed and into someone else’s? Second, how to get Charlie back to work? For Charlie, the film suggests, is stuck, creatively and sexually. Creatively, he is trying and failing to adapt a book into a film; sexually, he is trying and failing to have intercourse with a woman. His bedroom is the locus of these failures, and the film circles back to it time and time

again. In order to escape it, the film implies, Charlie will have to become creatively and sexually productive, which will also mean becoming creatively and sexually *reproductive*.

In this chapter, I will argue that the primary goal of *Adaptation* is to compel Charlie to forego his masturbatory indulgences (which the film and its critics represent as biologically and aesthetically sterile) and to begin a (re-)productive “relationship” with both the book he is trying to adapt and a member of the opposite sex. To borrow Brian Boyd’s terms, outlined in the introduction, the film must transform Charlie into a fully functioning “biocultural” subject: a “successful” author and lover, and a “fertile” member of evolutionary society (*Origin of Stories* 25; “Making” 591).

To do so, however, the film will also have to construct a utopia of male, heterosexual desire, in which sexuality is maximally optimized towards evolutionary (read: procreative) ends. Within this utopia, not only is (hetero-)sex made to appear necessary and useful for evolutionary survival (required for the perpetuation of the species and, indeed, for the preservation of life itself) but women are made, as a result, to appear always readily and naturally available to service the sexual needs of men. To construct this fantasy, the film must represent sexual intercourse between men and women as simply an extension of the reproductive activities of plants and animals (many of which are on full display throughout *Adaptation*). It must imagine a utopia in which humans, just like creatures in the so-called natural world, can, as Gerard Wacjman and Slavoj Žižek put it, “have sex ahistorically” (Žižek 83). That is, they can have sex without having to account for the desires of the other (in the case of *Adaptation*, the desires of the women whom Charlie encounters).³⁷ Sex, in this way, comes to be represented as a physical, evolutionary *need*

³⁷ “Il n’y a pas de rapport sexual” (Lacan 17). Žižek, via Lacan, is insisting on the fact that the enlightened human, at the level of the ego and in contrast to the animal, must “recognize,” in Hegelian terms, the existence, desires, and rights of the other. One of those rights, importantly, is the right to refuse sex,

rather than a psychological *wish*. It is absolutely and fetishistically dehistoricized, so that human beings (or specifically men) can deny the Lacanian truth that “there is no sexual relation.”³⁸ For when sex is viewed in *purely* evolutionary terms (that is, as something that is merely natural or biological), it can be assumed that all humans want to have heterosexual intercourse with, at least, somebody, and, at most, everybody. Evolution, in other words, is destiny. Within the context of *Adaptation*, therefore, Charlie can assume that there is not a woman alive who, deep down, in the very fabric of her genetic code, does not want to have sex with him. Heterosex, in fact, becomes an evolutionary duty, what natural historians, Christian moralists, and evolutionary philosophers (despite their self-professed differences) have referred to variously as the “work of life,” the “goal... of nature,” and the “single perspective” of “life and all its glories” (Lewis, 1956; Rousseau, *Émile* 38; Dennett, 144). Far from being driven by Charlie’s selfish, luxurious, and indulgent desires, sex in *Adaptation* comes to be represented as the necessary and productive act of that most global of all collectives: the human species.

This chapter deconstructs this fantasy of an evolutionary sexuality, showing how the film deploys it to legitimate Charlie’s reimagining of several women, as well as his rewriting of the book that one of them wrote, within the terms of a sexual and cinematic utopia. In other words, it

something that—so the theory goes—does not obtain in the animal kingdom. In other words, the so-called natural urge to reproduce trumps, in animals, the need to account for the desires and wishes of the other. Žižek argues that this is why humans are fascinated with nature documentaries: they let us observe animals having sex (mating) without any of the psychological baggage that we associate with the act. In Žižek’s opinion, this fuels the dream of having sex as a purely “evolutionary” function, of having sex “ahistorically” (83). For Lacan’s elaboration of the idea that “there is no sexual relationship,” see Jacques Lacan, *Le Séminaire. Livre XX: Encore, 1972-3*, edited by Jacques-Allain Miller. Paris: Seuil, 1975. I return to the importance of the Hegelian dialectic in relation to sexuality and evolution in Chapter Three.

³⁸ Recall also Bersani: “it is perhaps primarily the degeneration of the sexual into a relationship that condemns sexuality to becoming a struggle for power. As soon as persons are posited, the war begins” (Rectum 218).

argues that the film's themes of evolution, sexuality, and biological adaptation are precisely connected to its artistic aims—though not in the ways that scholars of biocultural adaptation studies have supposed. It argues that, by appealing to the supposedly eternal laws of evolution, *Adaptation* can make it seem *only natural* that women should give themselves up willingly to Charlie and *only natural* that he should rewrite another work of art as his own personal fantasy. By presenting this adaptive process as simply part of “the story of evolution, the story we all share,” as Charlie himself puts it, that story can become the ontological and epistemological justification for the film we end up watching, even as that film represents female desire and agency in ways that are at best distorted and at worst self-serving. Therefore, rather than seeing *Adaptation* as an unproblematic demonstration of how culture evolves and adapts in ways parallel to nature, I will argue that we should consider how the film deploys evolutionary themes as a means of legitimizing and naturalizing its representational strategies, how it presents *as natural* a fantasy in which women operate according to the so-called laws of biocultural reproduction. To use the film as evidence for the naturalness of those laws is simply to reify the fantasy on which it depends: namely that culture (as much as human beings and the *purely* natural world) can reproduce itself “ahistorically”—in other words, that culture can simply *evolve*.

In making this argument, I will focus on the scenes of Charlie masturbating as pressure points within the film's biological and libidinal economy. As mentioned, the intention of these scenes seems to be to establish Charlie as an unproductive member of biocultural society, someone who, in the terms of adaptive “fertility” explored in the introduction, fertilizes no-one and writes nothing. I will argue, however, that this interpretation is merely the result of a long history of utilitarian and heteronormative thought in relation to masturbation, sterility, productivity, and nature. I trace that history back to the philosopher and political theorist who has

been called the inventor of “modern masturbation”: Jean-Jacques Rousseau (Lacquer 13). Within Rousseau’s natural philosophy, not only are masturbation and productivity diametrically opposed to one another, but civilization and culture are viewed as perversions of a pure state of nature that is perceived as endlessly reproductive and dedicated towards limitless growth. I demonstrate how such Rousseauist ideas went on to influence both Thomas Malthus’s political economy and Darwin’s theory of evolution, before then filtering into the neo-Darwinism of Richard Dawkins and, ultimately, the representation of nature within *Adaptation* itself. In excavating the connections between these thinkers and this film, I argue that they share a similar investment in an understanding of life and nature as being coordinated around an almost unlimited heterosexual drive to reproduce (everybody “just trying to do” it). This understanding is then used to justify certain hierarchies of gender and sexuality on supposedly biological grounds. In relation to *Adaptation*, I argue that these hierarchies structure the film’s parallel fantasies of returning Charlie to a heteronormalized bioeconomy and of creating a movie that, in Charlie’s words, is “simply about flowers.” These fantasies, I suggest, are deployed in *Adaptation* to naturalize the process of rewriting a female author’s work precisely as a male sexual utopia. As such, far from being the result of so-called natural or biocultural processes, the film ends up reifying the political, economic, and representational strategies on which the accounts of those processes depend.

“A New Low”

The book that Charlie is supposed to be adapting whenever he is not masturbating is *The Orchid Thief* by Susan Orlean, written in 1998. That book began its life as an essay, “Orchid Fever,” published in the *New Yorker* in 1995. The essay followed John Laroche, an orchid

collector in southern Florida, and the book-length study expands upon his narrative. In both form and content, the book is a roving journey; as Charlie puts it in *Adaptation*: “it’s great, sprawling *New Yorker* stuff” (or, less kindly, later on: “it’s that sprawling *New Yorker* shit”). It meanders through the history of orchid collecting, the geography and politics of Florida, the social and scientific implications of Darwin’s theory of evolution, the ramifications of treaty negotiations between the United States government and Native Peoples, and more. At the same time, it documents Susan Orlean’s own personal journey of discovery, which takes her from her New York apartment into the swamps of southern Florida, in search of a particularly rare kind of flower: *Polyrrhiza lindenii*, or *Dendrophylax lindenii*, commonly known as the ghost orchid.

Against the sprawling, essayistic movement of *The Orchid Thief*, Charlie Kaufman’s and Spike Jonze’s *Adaptation* is an exercise in inertia. For much of its first half, the film offsets Orlean’s adventures in investigative reporting against Charlie’s comparative inability to do, say, or write, anything. As mentioned, Charlie frequently compensates for his stasis and inactivity by traveling imaginatively through a series of escapist, masturbatory fantasies, fantasies that transform him, unsurprisingly, into a “successful” lover and storyteller.

In one such fantasy, for example, Charlie dreams of Orlean (who is played by Meryl Streep) as he stares voyeuristically at her photo on the cover of *The Orchid Thief*. Suddenly, via his imagination, Orlean appears in Charlie’s bedroom, supposedly sharing in his sexual fantasy. During the scene, the camera cuts in close-up between them, accelerating the pace of the scene as it rises swiftly to its conclusion. The orgasm they reach comes quickly, even prematurely, but the moment is presented as a climax of sexual symmetry. Subsequently, the camera settles on Charlie as his face moves from wide-eyed excitement, through pained pressure to grateful release, eventually settling into quiet self-loathing. When we cut back to the wide-angle, however, Orlean

has vanished, reminding us that, literally and metaphorically, this is all taking place in Charlie's head: Orlean disappears, much like her writing and her work will do over the course of the film.

Several important aspects of the film come together in this scene. First, the scene demonstrates how *Adaptation's* aesthetics are explicitly tied to heterosexuality. Charlie's masturbatory fantasy suggests that, just as he is unable to form a so-called "productive" or "procreative" union with another human being, so too is he unable to produce a cinematic treatment of Orlean's work. His masturbation, in other words, has the dual function of showing him not writing and not having (actual rather than imagined) heterosexual intercourse.

Second, in the context of the film as a whole, we cannot help but connect this scene to the grand narrative of evolution. We know that Charlie, whom in this scene we see from behind *The Orchid Thief's* dust-jacket image of a flower, is lying on a bed that is strewn with books about orchids and evolution. Charlie pours over these books at various points in the film. In the masturbatory sequence with Orlean, therefore, we note that, in comparison to the images and the actual orchids that surround Charlie in his bedroom (there are two plants beside his bed), he is a reproductive (and therefore implicitly an evolutionary) failure. This is further demonstrated by an earlier scene that also takes place in Charlie's bedroom, as he sits reading *The Portable Darwin* (1993), an edited collection of Darwin's works. As he becomes inspired by this book, Charlie commences a rambling narrative that demonstrates how disconnected he feels from the rest of evolutionary history:

Darwin writes that we all come from the very first single-celled organism. Yet here I am, and there's Laroche, and there's Orlean, and there's the ghost orchid, all trapped in our own bodies at different moments in history. That's it. That's what I need to do: tie all of history together.

As we hear these lines, an erratic series of sped-up images meet our eyes. We see Darwin at his desk, followed by Charlie in his car, Laroche in his greenhouse, Orlean at her computer, and finally a ghost orchid ethereally lit against a black background. All of them appear isolated in their own specific environment, “trapped” in separate bodies. There seems little chance that Charlie will be able to “tie” them all together as he supposedly wants to do. Moreover, due to the sequence’s rapid speed, the images seem disorganized and random, occurring almost too fast for us to follow. Even the movement of the camera, which pans slowly and continuously from left to right as the images flicker across the screen, seems to contradict the idea that a neat pattern of Darwinian “descent” or evolutionary inheritance could be established. Instead, the lateral movement gives the impression that all of these scenes are happening simultaneously, as if we were observing them upon some dizzying cyclorama. In trying to make them coalesce, Charlie is driven slightly mad, as evidenced by the proposed screenplay that he develops in the following scene, which takes the form of a meandering, evolutionary journey:

Start right before life begins on the planet! All is... lifeless! And then... life begins!

With organisms—those little single-celled ones. Oh! And it’s before sex ‘cause, like, everything was asexual. From there, we go to bigger things... Jellyfish! And then that fish that got legs on it and crawled out on the land. And then we see, you know, like, um, dinosaurs! And then... then they’re around for a long, long time. And then an asteroid comes and... and... Thwark!

And so it goes on. Until, in the middle of the narrative, the camera cuts from Charlie speaking into his Dictaphone to Charlie listening to the recording hours later. He hears himself describe, in an impassioned grand narrative that drives to a breathless climax, “the whole history of human civilization: hunting, gathering, farming, war, love, religion, heartache, disease,

loneliness, technology... all the way to this moment in history and end[ing] with Susan Orlean in her office at the *New Yorker* writing about flowers and bang: the movie begins! This is great!” It is not great, and Charlie knows it. In direct contrast to the excited tones of his recorded voice, Charlie himself is now the picture of despair: shoulders slumped, he stares pitifully out of the window. His attempt to connect his own existence to the great effervescence of evolutionary life has, much like his sexual and aesthetic adventures, spiraled into nothing.

This theme of Charlie as an evolutionary failure is doubled by the fact that, as a writer, he is also explicitly contrasted with Darwin. Whenever the film cuts to images of Darwin, it shows him sat at his desk doing exactly what Charlie cannot: writing. Whereas Darwin produces copious books about evolution and flowers, Charlie is unable to write a single draft of a screenplay that would show, in his words, “how amazing flowers are.” In other words, not only can Charlie not sexually reproduce in the simple way that flowers can, he also cannot write about flowers or analyze them in the simple way that Darwin did. In almost every sense, therefore, Charlie is represented as a failure; he produces nothing, whether in evolutionary, sexual, scientific, or artistic terms.

The final important aspect of the scene in which Charlie masturbates over Orlean is that it highlights the film’s rather ambiguous and ethically fraught representation of male, heterosexual fantasy. When Orlean appears in Charlie’s bedroom, she offers a vision of what a well-established, heteronormative and procreative economy would look like. Insofar as he dreams of that economy, however, Charlie demonstrates his exclusion from it. Indeed, according to Slavoj Žižek, this is precisely what defines the dynamics of sexual jealousy and fantasy: “in jealousy, the subject *creates/imagines a paradise* (a utopia of full *jouissance*) *from which he is excluded*” (80; his gendering and italics). Furthermore, Žižek notes that this exclusionary subject occupies the

same position as the spectator observing the cinematic screen: is the spectator not, Žižek asks, “by definition, a *jealous subject*, excluding herself from the utopia observed on screen?” (81; his gendering and italics). Thus, not only does the masturbatory sequence in *Adaptation* encourage us, as audience members, to adopt the same subject position as Charlie (we too are outsiders supposedly desiring a return to the cinematic, sexual, and evolutionary economies), but it also creates a kind of doubled, meta-cinematic fantasy. It suggests that Charlie, as both a lover and a screenwriter, experiences two fantasies simultaneously: he desires to be in bed with Orlean at the same time that he desires to be where we are, watching the scene unfold in the movie he wants to write. At this moment in the film, in other words, Charlie can literally only dream of writing the scene that we are watching. He longs to be both absent and present: absent insofar as he feels he should be writing rather than masturbating; present insofar as Orlean represents the procreative economy in which he desires to participate.

More important than this meta-cinematic structure, though, is the fact that, in Charlie’s combined sexual and cinematic fantasies, Orlean comes only and exclusively to service his needs. After he has finished masturbating, Charlie stares at Orlean’s image and whispers: “I like looking at you.” Comfortingly, Orlean (via Meryl Streep’s voiceover) replies: “I like looking at you, too, Charlie,” transforming a voyeuristic moment into a reciprocal one (the film, in this way, has Orlean simultaneously acknowledge and sanction the male gaze of the cinematic imaginary).³⁹ She goes on to soothe Charlie’s anxieties about his sexual and artistic inadequacies:

Charlie: I don’t know how to do this. I’m afraid I’ll disappoint you. You’ve written a beautiful book. I can’t sleep. I’m losing my hair. I’m fat and repulsive.

Orlean: Shh. You’re not. You’re not.

³⁹ As discussed by Laura Mulvey in “Visual Pleasure and Narrative Cinema” (1975).

By this stage in the film, we as audience members are long acquainted with Charlie's anxieties. They have been with us since the very first scene, which opens on a black screen with a voiceover that actively invites us to identify with Charlie's stream of consciousness. With the rest of the world shut out (almost as if Charlie were lying in bed with his eyes closed) Charlie begins the film with a long, self-questioning monologue about how "sad and pathetic" he is:

Do I have an original thought in my head? My bald head? Maybe if I were happier my hair wouldn't be falling out... All I do is sit on my fat ass. If my ass wasn't so fat, I would be happier... What do I need to do? I need to fall in love. I need to have a girlfriend.

When Orlean speaks to Charlie in his bedroom, engaging in imaginary pillow talk from out of the pages of her book, we seem invited to take comfort in the fact that at least some of Charlie's anxieties have been temporarily assuaged. Charlie finds an (imaginary) girlfriend and falls in love. In this fantasy, however, Orlean clearly only responds to Charlie's sexual and artistic needs: she satisfies his desires and comforts him about his hair, weight, and writing ability. Quite precisely a projection, in other words, Orlean is the sublime achievement of the male fantasy: both a willing lover and a caring, giving mother.

That Orlean performs a structural function within Charlie's fantasy, rather than existing as an independent subject, is further demonstrated by the way in which she and the other women in the film are so easily substituted for one another. I have already mentioned that, alongside Orlean, Charlie also fantasizes about a waitress in an orchid garden, but there is yet another imagined sequence in which he enjoys a romantic morning in bed with Orlean's agent, Valerie Thomas (Tilda Swinton). Again, in this scene, the emphasis is as much on the post-coital support that Valerie Thomas offers as on the act of coitus itself, as she tells Charlie that his screenplay is

“brilliant.” Artistically and sexually, in other words, all of these women seem to function simply as pillars of support for Charlie.

The adaptation theorist Simone Murray (2012) has argued that the scenes of Charlie masturbating in *Adaptation* show the screenwriter at “a new low” (131). However, her reasoning for this is not that they reveal Charlie’s male fragility or his inability to imagine the lives of women as being anything other than entirely coordinated around his sexual and creative needs. Rather, for Murray, the “scenes of a furtively masturbating Kaufman” highlight the impotency of the Hollywood screenwriter, suggesting that “he is unable so much as to find the apocryphal starlet dumb enough to sleep with the writer” (132). Her argument, in other words, made with an uncharacteristic lack of subtlety and more than a hint of casual sexism, is that “the contribution of screenwriters” to cinematic production “has been systematically marginalized” and that Charlie’s recentering of *Adaptation* on himself amounts to an act of recovery (132). His *self*-love is an expression of the “long pent-up frustration and disgruntlement of an entire profession—the film-industry screenwriter, especially its subset of the Hollywood screenwriter” (132). While it may be true that Hollywood screenwriters are generally underappreciated in the movie-making process, Murray’s comments here also reveal the extent to which assumptions about heteronormative productivity and procreation tend to inform analyses of this film. Indeed, the reason why Murray seems to view masturbation as such a “low” for Charlie is that it demonstrates his inadequacies as a writer, a lover, and dare we say, a “man.” As he is unable to write, so too is he unable to get the “dumb” girl he desires, which therefore leaves him having to masturbate over her and others instead.

On the one hand, the stereotyping of solitary sexuality in Murray’s account is clearly intended as a means of offsetting Charlie against a romantic ideal of sexy (male) authorship. On

the other hand, I would also suggest that, even if it is unacknowledged, the reason why masturbation is such a potent symbol for Murray here, particularly in a film so concerned with evolution and procreation, is because of its long association with reproductive sterility (something which I outline in more detail in the following section). As Murray puts it, masturbation is symbolic of a “frustration,” and while Murray’s focus in this regard is primarily on economics and aesthetics, in the context of this film, “frustration” cannot help but also be associated with (hetero-)sexuality, procreation, and evolution. Moreover, the reference to “frustration” seems to align with the Žižekian model of jealous fantasy, coordinated around exclusion. The difference is that, for Žižek, this fantasy is pathological, literally *self-destructive*, since “the fundamental subjective position of fantasy [is] to be reduced to a gaze observing the world in the condition of the subject’s non-existence” (81; as mentioned, Charlie longs in his fantasy to be both absent and present). For Murray, by contrast, the fantasy of sexual intercourse and the concordant economy it entails are things that need to be attained, *realized*. Charlie’s frustration will only be overcome, Murray seems to imply, once he gets recognition for his work and gets an actual girl to sleep with him.

As I argued in the introduction, several analyses of *Adaptation* are coded in similar terms. Linda Hutcheon argues in *A Theory of Adaptation* (2012) that the “Darwinian themes” of the film allow us to focus on how “cultural adaptation involves migration to favorable conditions,” as writers ultimately overcome the barriers they face, leading them to create adaptations that “survive” and “flourish” (32-3). Relatedly, Brian Boyd’s theory of adaptation as a “fertile” process leads him to view the film as a model for how unproductive sterility might be transformed into “creative fertility”: “By exploring the comic impasse of Charlie Kaufman’s

writer's block... the real Kaufman unexpectedly breeds something utterly new out of *The Orchid Thief*" ("Making" 603).

In other words, in the happy ending of the film, writer's *block* and sexual-economic *frustration* are overcome in one and the same gesture. As I will argue, however, it may be that this reading is simply a product of the film's own willingness to transform Charlie from an unproductive masturbator into a procreative author. It is not necessarily due to biocultural adaptation's so-called natural capacity for "engendering" something "utterly new," as is implied by Boyd's final claim that "Kaufman's emphasis on adaptation as a source of *creativity*... is faithful to Laroche's emphasis, and Orlean's, and *nature's*, and *art's*" (603; italics mine).

Combined together, Murray's, Hutcheon's, and Boyd's analyses suggest an implicit distinction between the "creative fertility" of heterosexual intercourse on the one hand and the sterile "frustration" of masturbation on the other. Such a distinction depends, however, on an understanding of masturbation as a somehow incomplete (in Freudian terms, childish or underdeveloped) sexual activity, rather than one that is complete in its own right (in other words, one that is "successful," not frustrated).⁴⁰ Indeed, this kind of understanding of masturbation seems necessarily implied in Murray's analysis since, otherwise, even if Murray did not envisage Charlie's tryst with the "apocryphal starlet" to be necessarily procreative (if they used contraception, for example), then the only thing that would distinguish between their intercourse and Charlie's masturbation would be the fact that, in this particular case, the former would involve more people. But this, of course, would hardly be the basis for an evaluative hierarchy.

Before turning to a critique of this understanding of masturbation, I would like to consider briefly the character in the film who represents Charlie's artistic and sexual obverse: his

⁴⁰ See Sigmund Freud, *Three Essays on the Theory of Sexuality* (105), discussed in more detail below.

brother, Donald. From an artistic perspective first of all, as mentioned, Charlie is trying to write what he believes is an original adaptation of *The Orchid Thief* (the oxymoron itself is telling—as Charlie puts it, “no one has ever done a movie about flowers before”). Donald, on the other hand, is penning what Charlie believes to be a supremely derivative thriller, in which a serial killer, his victim, and an investigator are really all one and the same person. In one scene, Charlie tells his brother, with withering disdain and several layers of meta-filmic irony, that the most “over-used device in all of filmmaking is multiple personality disorder.” Also, he claims, by exploring the idea that “killer and investigator are really just two aspects of the same personality,” Donald is just repeating the tropes of every crime movie ever made. If Charlie’s film is an original adaptation, in other words, Donald’s is a formulaic original. In this way, as Glenn Jellenik puts it in, the film “enacts a collision between Charlie's literary originality-thesis... and Donald's filmic derivation-antithesis” (“Adaptation’s Originality Problem” 185).

Importantly, though, these opposing aesthetic theses are also mirrored in Donald’s and Charlie’s corresponding love lives. As Robert Stam puts it in his analysis, “while Charlie is a hypercerebral, insecure, masturbatory, Dostoevskyan *Underground Man*, Donald is a breezily confident womanizer” (“Theory and Practice” 2). Thus, while Charlie finds himself isolated, tied to his bedroom, Donald strikes up an easy relationship with a makeup artist named Caroline. Rather fittingly, he does so while visiting the set of another movie for which Charlie has written the screenplay. In this scene, Charlie is quite literally side-lined, “marginalized,” to borrow Murray’s term (132). He watches from afar as Donald initiates a conversation with Caroline, a conversation that continues through a jump cut into Donald’s bedroom. Here, in stark contrast to the representation of Charlie, Caroline sits beside Donald with her feet up, reading the latest draft

of his screenplay. She and Donald engage in a light and buoyant conversation about the recent edits Donald has made to his script:

Caroline: It's really good!

Donald: Well, you know what I did was I tried to split the Cassie scene in half from the start—

Caroline: I know, I saw that. Why did you do that?

Donald: Because I wanted there to be more tension, you know?

Their conversation continues offscreen as we cut to Charlie, who sits with his eyes closed, listening exasperatedly to the giggles and the chatter of Caroline and his brother, partners in writing and romance. In contrast to Donald, Charlie writes nothing; he does not even have a draft to edit. Perhaps the most ironic part of all is that, because Nicholas Cage plays both characters, when we hear Donald's voice from the other room, it sounds like Charlie's own interior monologue. Of course, it is not, and at this point in the film, it seems, Charlie does not even have himself for company. He is isolated sexually (alone in his bedroom) just as he is isolated creatively (without a partner to bounce ideas off).

In this way, the juxtaposition of Charlie and Donald helps to outline the stakes of the interrelated crises that the film sets up for Charlie: how to find a girlfriend and how to write a screenplay. These crises come to a head when Charlie decides to attend the same screenwriting seminar as Donald, hosted by Robert McKee (played by Brian Cox) and based on the latter's celebrated guide to writing: *Story: Substance, Structure, Style, and the Principles of Screenwriting* (1997). During this seminar, Charlie claims that he wants to write a film that is different from the usual Hollywood fare, a film in which "nothing much happens, where people don't change, don't have any epiphanies; they struggle and are frustrated, and nothing is resolved,

more a reflection of the real world” (note how the keyword “frustrated” appears again). In response, McKee declares angrily that this simply shows that Charlie does not understand the “real world” at all; or, in McKee’s rather more colorful terms, he does not “know crap about life.” McKee, incidentally, gives his own opinion of what life really is, and it is interesting to note that, in a film so invested in the theme of evolution, he defines life almost entirely in terms of violent conflict and struggle:

Nothing happens in the world... Are you out of your fucking mind? People are murdered every day. There’s genocide, war, corruption. Every fucking day, somewhere in the world, somebody sacrifices his life to save somebody else. Every fucking day, someone, somewhere takes a conscious decision to destroy someone else. People find love; people lose it. For Christ’s sake, a child watches a mother beaten to death on the steps of a church. Someone goes hungry. Someone 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!

There are two things to note about the representation of “life” here. The first is its Hobbesian undertones. Though he is talking about human society, life for McKee is highly reminiscent of Hobbes’s account of the state of nature, a state where there is “continual fear and danger of violent death” and where life is “solitary, poor, nasty, brutish, and short” (*Leviathan* 84). There is, moreover, a tellingly active gendering of the various agents of life resulting in wars between men, violence against women, and homosocial competition: a man “sacrifices *his* life”; a “*mother*” is “beaten to death”; a man “betrays *his* best friend for a *woman*.” If life is a violent war, in other words, it is a war fought between men for access to women, with violence towards women permitted only after they have given birth, all premises which conveniently align with the evolutionary definition of life as “struggle.”

Second, this view of life also extends to McKee's feelings about art. Seemingly channeling Brian Boyd's and Linda Hutcheon's accounts, mentioned in the introduction, of "successful" stories that "compete" for attention, McKee tells Charlie that if he does not represent life as a struggle, then he is guaranteed to fail: "if you write a screenplay without conflict or crisis you'll bore your audience to tears," he says.⁴¹ In order for art to be "successful," in other words, it must replicate precisely the violent image of life that McKee describes. Anything that deviates from that is a useless waste of time. This is demonstrated by the culmination of McKee's rant, when he asks Charlie: "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" (my emphasis). For McKee, in other words, time is money and utility is the measure of all value.

In multiple ways, therefore, McKee states clearly here the otherwise implicit premise of the film: namely that Charlie's lack of productivity (reflected in his double inability to either write or engage in procreative sex) is a drain on both art and life. This extends to all aspects of Charlie's existence. As Charlie says to McKee outside the lecture hall, the point is "bigger than [his] screenwriting choices; it [is] about [his] choices as a human being." In other words, in suggesting that Charlie must adapt and change—overcome his inner conflict—the film implies that he is currently not fulfilling the requisite duties of the human. He is "a protagonist without desire" (or, at least, a protagonist unable to satisfy his desire by way of an external, heterosexual love-object), and a protagonist without desire, according to McKee, "doesn't make any sense." For Charlie to "make sense," therefore, he must come back to *life*; he must come out of his bedroom and be reconnected with the generalized bioeconomy of nature, work, production, and

⁴¹ From a less biological or evolutionary perspective, McKee's laws clearly recall the idea of "central conflict theory" in cinema, which was so ably critiqued by Raúl Ruiz in *Poetics of Cinema I* (2005, 9-24).

procreation. What this suggests, however, is that the film is governed by a very particular understanding of what life is, an understanding coordinated almost entirely around utility and (re-)productivity. In the following section, therefore, I trace the history of that understanding, before turning to its influence on the Darwinian and post-Darwinian evolutionism of *Adaptation*.

“The Work of Life”

The idea that biological or natural “life” is connected to procreation and productivity is a heteronormative fantasy with a long history. This idea takes non-procreative forms of sexuality (such as homosexual intercourse and, in the case of Charlie Kaufman, autoeroticism) as the obverse of productivity and, very often therefore, as the obverse of life itself. This leads to an understanding of masturbation as the purportedly sterile alternative to purportedly fertile intercourse. To outline the contours of this understanding, I want to begin with a twentieth-century account of masturbation, since it so closely relates to my discussion of *Adaptation*. The account comes from C. S. Lewis, who, in a 1956 letter to Charles Masson, wrote:

For me the real evil of masturbation would be that it takes an appetite which, in lawful use, leads the individual out of himself to complete (and correct) his own personality in that of another (and finally in children and even grandchildren) and turn it back: it sends the man back into the prison of himself, there to keep a harem of imaginary brides. And this harem, once admitted, works against his ever getting out and really uniting with a real woman. For the harem is always accessible, always subservient, calls for no sacrifices or adjustments, and can be endowed with erotic and psychological attractions which no woman can rival. Among those shadowy brides he is always adored, always the perfect lover: no demand is made on his unselfishness, no mortification ever imposed on

his vanity. In the end, they become merely the medium through which he increasingly adores himself... And it is not only the faculty of love which is thus sterilized, forced back on itself, but also the faculty of the imagination.

The true exercise of imagination, in my view, is (a) To help us to understand other people. (b) To respond to, and, for some of us, to produce art. But it also has a bad use: to provide for us, in shadowy form, a substitute for virtues, successes, distinctions, etc. which ought to be sought outside in the real world—e.g. picturing all I'd do if I were rich instead of earning and saving. Masturbation involves this abuse of imagination in erotic matters (which I think bad in itself) and thereby encourages a similar abuse of it in all spheres. After all, almost the main work of life is to come out of ourselves, out of the little, dark prison we are all born in. Masturbation is to be avoided as all things are to be avoided which retard this process. The danger is that of coming to love the prison. (Letter to Keith Masson, 3 June 1956)

One could not ask for a more prescient diagnosis of Charlie's condition. There is the egotism of the masturbating subject (what Charlie calls his "narcissistic, solipsistic" tendencies). There is even the same injunction to get out and "do something," captured in Lewis's inadvertently apt instruction that we must all try and "*come* out of ourselves." There is the perfect marriage of the spirit of capitalism with the labor of heteronormative procreation: masturbation substitutes "imaginary brides" for "real" women in the same way that dreams of riches substitute "picturing" for the "real world" of "earning and saving." There is even a mention of the "sterility" of masturbation, which straddles both procreation and aesthetics: "it is not only the faculty of love which is sterilized, forced back on itself, but also the faculty of the imagination." Charlie, in other words, is precisely the kind of man that Lewis would worry about: lying in bed dreaming of his

“harem” of women that are “always accessible” and “always subservient,” Charlie seems to have abandoned the “work of life” and come “to love the prison.”

The ur-text for Lewis’s account of masturbation here is of course the story of Onan in the book of Genesis. It is worth noting in passing, however, that Genesis makes no mention of masturbation as sterile and contains no explicit prohibition against the act itself. Rather, it contains a very severe injunction against *coitus interruptus* (and specifically, *coitus interruptus* when it involves having sex with your dead brother’s wife): “and it came to pass, when he went in unto his brother’s wife, that he spilled it on the ground, lest that he should give seed to his brother. And the thing which he did displeased the Lord: wherefore he slew him” (Genesis 38:9-10). It is, of course, not especially clear why the Lord was so displeased with Onan here. It is sometimes argued that the basis of the dispute was economic, rather than sacred or biological, since paradoxically to contemporary thinking, Onan feared furthering his brother’s line, rather than his own, by impregnating his brother’s wife (by giving “seed to his brother”).⁴² In Christian Europe, however, this vignette came to epitomize the sin of non-procreative sexual activity, summed up by John Calvin when he stated that “the voluntary spilling of semen outside of intercourse between a man and a woman is a monstrous thing” (qtd. in Thatcher 185). Obviously, the fact that this came to be applied to masturbation in general is both a retroactive overreading of Genesis and a gendered misunderstanding of what masturbation actually entails (only men could be accused of “spilling” anything).

As many scholars have pointed out, this account of masturbation largely came to be crystallized in the western cultural imaginary through the writings of the eighteenth-century Enlightenment thinker, Jean-Jacques Rousseau. Thomas Laqueur, for example, argues that

⁴² For a summary of this argument, see Adrian Thatcher, *God, Sex, and Gender: An Introduction* (2011).

“modern masturbation can be dated with a precision that is rare in cultural history. It was born in, or very close to, the same year as that wild and woolly and profoundly self-conscious exemplar of ‘our’ kind of human, Jean-Jacques Rousseau” (13). Rousseau’s description of masturbation in Book III of *The Confessions* (1790) clearly resembles Lewis’s. Significantly, Rousseau worries over the fact that masturbation is simultaneously both the most “natural” thing in the world to do (because one does not need anyone else to do it) and also that which “defrauds nature,” leading to destruction, laziness, illness, even death. In his autobiographical account, Rousseau describes the moment he discovered masturbation as follows:

I had learned to use that dangerous substitution [*dangereux supplément*] which defrauds nature and saves young men of my temperament from many disorders, but at the expense of their health, their strength, and sometimes their life itself. This vice, so congenial to shame and timidity, is, in addition, very attractive to those of a lively imagination, for it places at their disposal, as it were, the whole of the other sex, and makes any lovely woman that tempts them serve their desires without needing to obtain her consent.

Seduced by this baneful advantage, I set about destroying the good constitution which nature had provided me and which I myself had allowed sufficient time to develop. (106)

The parallels with Lewis are obvious. There is again the harem of shadowy women placed at men’s “disposal” (in Rousseau, the model is even more violent—there is no need for a masturbating man to obtain a woman’s “consent”), as well as the anxiety that masturbation might threaten “life itself.” The influence of the Calvinist tradition, moreover, is equally apparent. As Eugene Stelzig (2000) argues, “for Rousseau, the puritanical moralist and citizen of the theocratic republic founded by John Calvin, masturbation is exclusively the activity of an inflamed erotic imagination; it is not a legitimate or acceptable expression of sexuality, but a perverted and sterile

self-indulgence” (54). We should go even further than this, though, for the threat that masturbation poses to life in Rousseau is doubled: not only is masturbation sterile because it does not lead to procreative intercourse but also because it drains the “vital substance” of the masturbator (106). Thus, it puts life in the present at risk as much as life in the future; the life of the masturbator, as much as the life of his hypothetical future child, is at stake.

The most famous critique of Rousseauist masturbation arguably comes from Jacques Derrida in *Of Grammatology* (1967). In this critique, Derrida (164) notes that, for Rousseau, the problem with masturbation was “a question of the imaginary” (as, we might add, it was for Lewis). The “danger” Rousseau finds in masturbation, according to Derrida, “is that of the image” (164). This is significant for our understanding of Charlie in *Adaptation* since, as mentioned above, the film seems to worry precisely over the dangers that the imaginary poses to the “work of life” in sexual and cinematic production. In the scene in which Charlie masturbates over Orlean, the fantasy of her image (literally taken from her dust-jacket photo) comes to supplement and substitute for the so-called real work, the “creative fertility,” of heterosexual intercourse and screenwriting (Boyd, “Making” 603). Of course, Derrida’s focus in *Of Grammatology* is specifically on Rousseau’s characterization of writing as supplementary to speech, which is less relevant to *Adaptation*, but there is undoubtedly a similar coordination in *Adaptation* and *The Confessions* between the unproductive, lazy writer and the masturbating subject. In both cases, moreover, the issue is precisely one of *vitality* or *life*. As Derrida writes of Rousseau, “just as writing opens the crisis of the living speech in terms of ‘its image,’ of its painting or its representation, so onanism announces the ruin of vitality in terms of imaginary seductions” (164). Similarly, by relying on phantasmatic images of women rather than engaging in social and sexual intercourse with them (by literally not even being able to pluck up the

courage, as Charlie himself notes, to *speak* to Orlean when he sees her in a restaurant) the masturbating Charlie is just as much of a threat to life as the masturbating Jean-Jacques in the *Confessions*.⁴³

In Rousseau's *Émile* (1763), the threat that the masturbatory imaginary poses is managed by a hypervigilant surveillance system, intended to prevent the protagonist from ever discovering the "dangerous supplement." This is demonstrated by the tutor's injunction to "carefully watch the young man... Do not leave him alone neither at night nor during the day: let him go to bed overcome by sleep and let him arise the moment he wakes up" (qtd. in Stelzig 54). In other words, the young boy must be watched day and night, exhausted of all his vital energy and forces, for once he "knows this dangerous supplement, he is lost. From then on, he will always have an enervated body and heart." In response, the tutor declares: "I will not allow the goal of nature to be eluded" (qtd. in Stelzig 54). This "goal of nature," as Stelzig points out, can only be "heterosexual intercourse and presumably also procreation" (54).

⁴³ Laqueur reports an interesting other side to this tradition, which is represented by the work of Gore Vidal, for whom "sex is intimately bound up with the power to imagine and to create" (1973, 219). Vidal argues that "few lovers are willing to admit in the sexual act that to create or maintain excitement they may need some mental image as erotic supplement to the body in attendance" (220). Thus, as Laqueur puts it, "Rousseau's 'dangerous supplement' has become domesticated and socially useful. Of course, we cannot take Vidal quite straight. That said, there is something to the idea that in order to make the solitary act meaningful for the adolescent—and why not for anyone?—'the theater of his mind early becomes a Dionysian festival.' One consequence is that if someone does this well, then sex with another might become a boring disappointment, a standard eighteenth-century worry. But the other side of this prototypical occasion for fantasy is that it becomes the nursery of the imagination for a greater good" (69). It is not clear exactly what Laqueur means by "greater good" here but it seems to be some form of broader, biological and cultural productivity. Nevertheless, Vidal's and Laqueur's view here still arguably figures masturbation as a childish precursor, a form of playful preparation for real work (when the theatre of the mind becomes a theatre of the stage) and real sex (a form of training in how to make intercourse bearable through fantasy).

In psychoanalytic discourse, this understanding of masturbation as a perversion of the “goal of nature” is also found in the Freudian paradigm of the “successful” development of the young child who is raised to enter “normal” society (105). This child, Freud argued, must pass through each stage of psychosexual development to arrive at “normal” heterosexual desire, redirecting his autoerotic instincts towards procreation. In the *Three Essays on the Theory of Sexuality* (1905), Freud stressed that this was a necessary precursor to any adult (male) fulfilling his sexual and biological (or, we might say, biocultural) function:

The characteristics of infantile sexual life... are the facts that it is essentially autoerotic (i.e., that it finds its object in the infant’s own body) and that its individual component instincts are upon the whole disconnected and independent of one another in their search for pleasure. The final outcome of sexual development lies in what is known as the normal sexual life of the adult, in which *the pursuit of pleasure comes under the sway of the reproductive function* and in which the component instincts, under the primacy of a single erotogenic zone, form a firm organization directed towards a sexual aim attached to some extraneous sexual object. (105)

In other words, the transition to the “normal sexual life of the adult” is characterized by the switch from autoeroticism to heterosexual intercourse (leading to procreation). Thus, so-called natural psychosexual development coincides fortuitously with the evolutionary urge to reproduce. In other words, as is well known, Freud *normalizes* autoeroticism in every sense of the word here: “what had been an ethically suspect and medically pernicious practice became with Freud an arena for normative psychogenesis. It was something one had to go through, to get beyond in a precisely orderly way” (Laqueur 71). (Note, incidentally, how Rousseau will

frequently describe himself, following the discovery of masturbation, as an underdeveloped child: “until the end of his life, he will not cease to be an elderly child,” qtd. in Derrida 167).

In *Adaptation*, this transition to “normal sexual life” is achieved in the closing sequence of the film, when Charlie finally tells his long-term love interest, Amelia, that he loves her. As a reward, he receives the coveted “I love you too” from her in return, this time with her speaking it to him in conversation, rather than him imagining it while reading a book, as was the case with Orlean. (Note that, in Derrida’s Rousseauist terms, the moment occurs in speech, with the two of them *present* together and the words *spoken* using vital breath or *pneuma*; Charlie is no longer alone in his bedroom *imagining* the moment while *reading* the written word). That Charlie had previously been on a failed date with Amelia makes the transition to this new heterosexual harmony all the more apparent: he has gone from being an isolated loner to being a functioning member of evolutionary society. In one and the same moment, Charlie gets the girl and saves the world (or, at least, the human species) from the crisis of evolutionary collapse. Quite literally, therefore, “his pursuit of pleasure comes under the sway of the reproductive function” as both he and the future of humankind are saved (Freud, *Three Essays* 105).

Importantly, though, this demonstrates that what is at stake from Rousseau, through Freud and Lewis, all the way up to *Adaptation* is precisely what counts as “normal sexual life” and what we define as the “goal of nature” (Freud, *Three Essays* 105; Rousseau, *Émile* 38). In order for masturbation to be positioned as the structural obverse of heterosexual intercourse, the natural must always already be defined as being driven, generally and in the main, towards procreativity, which takes place in humans through zygotic fertilization. As such, productivity and fertility become the markers of what is natural, and the “baneful advantage” of masturbation

comes to be figured as a perversion of aesthetic and sexual reproduction (Rousseau, *Confessions* 106).

However, it should go without saying that these definitions of the “goal of nature” and “normal sexual life” are highly circumscribed. Procreative sexuality is hardly any more “natural” than other forms of non-procreative sexuality, and fertility is no more the “work of life” than infertility. In the next section, however, I show how this particular, limited understanding of “nature” as inherently driven towards procreation and reproduction came to predominate in Darwinian and post-Darwinian theory. As a result, its structural hierarchies became naturalized in *Adaptation* in service of the film’s sexual and cinematic fantasies.

The Origins of *Origin*

This section outlines a lineage that runs from the natural history of Jean-Jacques Rousseau, through the population science of Thomas Malthus, up to the evolutionary theory of Charles Darwin. Although the influence of Rousseau on Darwin is less frequently discussed than the influence of Malthus, there is considerable evidence to suggest that Darwin and his family were heavily influenced by Rousseau. Darwin himself, in fact, told a (most likely apocryphal) story about his grandfather, Erasmus Darwin, meeting Rousseau in a cave in the English Midlands, when Rousseau stayed there during his time in England.⁴⁴ Charles Darwin maintained that, after this meeting, his grandfather corresponded with Rousseau extensively, though J. Marc MacDonald remarks that there is “no extant evidence of their encounter or an epistolary exchange” (7). MacDonald does maintain, however, that there was a “direct and intellectual

⁴⁴ Darwin gives an account of this in his biography of his grandfather. See *Charles Darwin’s Life of Erasmus Darwin*, edited by Desmond King-Hele (2004).

bridge among J.-J. Rousseau, T. R. Malthus and Charles Darwin” (2) Indeed, one only has to look at the evolutionary shape and structure of the aptly named *Discourse on the Origins and Foundations of Inequality Among Men* (1755) and the *Essay on the Origin of Languages* (1781) to see how Rousseau’s work prefigured the intellectual concerns of Darwin’s *Origin*. The *Essay* in particular is notable for outlining a “theory of the evolution of the human race which prefigured the discoveries of Darwin,” particularly those presented in *Descent* (Cranston, *Jean-Jacques* 293).

This connection between Rousseau, Malthus, and Darwin, however, stands in contrast to what is sometimes viewed as the antithesis between Malthusian and Rousseauist thought. The main reason for this understanding is that Malthus’s *Essay on the Principle of Population* (1798) was originally presented as a debate between the author and his strongly Rousseauist father. His father stated, in fact, that: “if I am ever known, it will be as the friend of Rousseau” (*Correspondance* 35: 56). But Malthus marked out his text in opposition to his father’s views. Understandably, therefore, certain of Malthus’s ideas seem almost diametrically opposed to Rousseau’s. This is most notably apparent, for example, in their contrasting ideas about the merits of population growth. Rousseau had argued in *The Social Contract* (1762) that, “all other things equal, the government under which, without recourse to extraneous means, with no naturalization or colonies, the citizens most *flourish and multiply* is indubitably the best” (117). Malthus, by contrast, famously argued that population increase would ultimately lead to the demise and destruction of civilized society:

The power of population is so superior to the power of the earth to produce subsistence for man that premature death must in some shape or other visit the human race. The vices of mankind are active and able ministers of depopulation. They are the precursors in the

great army of destruction, and often finish the dreadful work themselves. But should they fail in this way of extermination, sickly seasons, epidemics, pestilence, and plague advance in a terrific way, and sweep off their thousands and tens of thousands. Should success be still incomplete, gigantic inevitable famine stalks in the rear, and with one mighty blow levels the population with the food of the world. (61)

Thus, whereas for Rousseau, unlimited production and reproduction were the sources of plenty and wellbeing, for Malthus they were the necessary harbingers of famine and death, soldiers in “the great army of destruction.” In contrast to Malthus, Rousseau felt that it was only specific forms of human society that led to famine and impoverishment. Famously, when asked why he had sent all of his and Thérèse Levasseur’s children to an orphanage, he replied: “Nature wishes us to have children because the earth produces enough to feed everybody; it is your style of life which robs my children of bread” (*Correspondance* 9:18). Malthus, on the other hand, argued that such curtailments on wealth and produce were predicted by nature itself.

While the above discussion highlights the difference between Malthus’s and Rousseau’s respective political theories, however, it also shows clearly what their theories of nature have in common: namely, that the natural world is endlessly driven towards reproductivity and growth. Indeed, this is made clear from the overarching thesis of Malthus’s *Essay*, which is that population increases exponentially while food production increases only arithmetically. This idea depends, clearly, on a seemingly natural human drive to have unlimited procreative sex in order to populate the earth. Indeed, as many scholars have pointed out, the very idea of *non*-procreative sex was unconscionable to Malthus. As much a Christian moralist as Rousseau, as Geoffrey Gilbert argues, “he found contraception, even within marriage,” to be “morally unacceptable” (ix). Given the risk that unchecked procreation posed to population growth, therefore, Malthus

was forced to come up with elaborate mechanisms of what he called “moral restraint” to curb sexual activity. He suggested, for example, that the age of marriage be delayed and that people be encouraged to remain celibate, exercising a kind of sexual prudence that, as Christopher Brookes (2020) argues, “had a conspicuously Rousseauist dimension” (26). Thus, whereas Rousseau had sought to promote heterosexual intercourse (through the prevention of masturbation), Malthus wanted to find ways to limit it (without, of course, sanctioning masturbation). Thus, where they differed in their assessments of how sexuality should be handled, they were clearly aligned in their belief that it was endlessly fertile.

It is this that extends the influence of Rousseau, via Malthus, into the work of Charles Darwin. We can see that influence, in fact, in what Gillian Beer identifies as the central “three ideas” behind Darwin’s “novel insight,” namely “hyperproductivity, variability, and selection.” As Beer argues, the first two of these ideas “tend towards largesse: (1) superabundance of individuals and kinds; (2) variety potentiating a large variety of ecological niches” (“Introduction” xviii). Here, therefore, we find the limitless procreativity of Rousseauist and Malthusian nature. “The third idea—selection—is more frugal. It drives ruthlessly across the populous ideal landscape of the first two, culling, controlling, and weeding out” (xviii). This, in other words, is the specifically Malthusian principle of natural population control.

As Beer also points out, the mechanism of “selection” mentioned here is actually a catch-all term for three different forms of selection that appear in Darwin’s theory: artificial selection, natural selection, and sexual selection. I briefly dealt with sexual selection in the introduction, focusing on how it fueled gendered theories concerning cultural evolution. Here, however, I will focus on the connection between artificial and natural selection, as this will bring us to the

specific way in which Rousseauist and Malthusian ideas have influenced more recent expositions of Darwinism.

As is well known, Darwin begins his account of the evolution of adapted traits in nature with a consideration not of the so-called natural world, but of the so-called cultural achievement of *breeding*. This is what he calls “artificial selection” (*Origin* 84). Specifically, he describes man’s urge to dominate, train and breed animals in order to produce in them certain “adaptations” that will benefit himself, rather than the animals he is breeding. One of Darwin’s examples is cocks bred for cockfighting, a “sport” that was introduced to Britain by the Romans and that, despite being outlawed in 1849, still continues to this day. The aggression, speed and power that developed in certain birds as a result of selective breeding for cock fights was in no way beneficial to the birds themselves, Darwin points out, but it did serve to generate a lot of money for a lot of people (26). Darwin also explicitly refers to the sheep breeding techniques of Robert Bakewell, one of the founding figures of the British Agricultural Revolution, whose desire to support the growing demand for meat and textiles led him to selectively breed large and strong-boned sheep with particularly long wool to sell. As different breeders borrowed these methods to serve different markets, their flocks of sheep began to diverge so much from one another via reproductive isolation that they looked remarkably different from each other. Darwin commented on two flocks “purely bred from the original stock of Mr Bakewell for upwards of fifty years,” which led ultimately to a situation in which “the difference between the sheep possessed by these two gentlemen was so great that they [had] the appearance of being quite different varieties” (30). Finally, Darwin also refers to dog breeding, which had proliferated as both a science and an art in the 19th century when Bakewell’s techniques were repurposed into breeding dogs that were, on the one hand, more “useful” and, on the other hand, more “beautiful” than others (in both cases,

from the perspective of human beings, 30). This history of dog breeding, in fact, led to the first European dog show in London in 1859—the very year that *Origin* was published—arguably a prime example of the combined urges to commodify and aestheticize the natural world that underwrote the nascent industrial modernity of Darwinian England. This was animal speciation combined with the unprecedented speed and power of industrialization leading to the mass production and exhibition of so-called nature.

Having begun with these restricted economic examples, Darwin then moves to claim that nature itself is similarly selective (hence, “natural selection”). In natural selection, it is the species that are best adapted to the specific conditions in which they live that will tend to survive and produce more offspring. The major difference between natural selection and artificial selection, therefore, is that, in the former, it is not the species that are adapted to suit the needs of human beings that prosper, rather it is those that are better suited for survival in their environment.

Darwin puts this point explicitly:

We have seen that man by selection can certainly produce great results, and can adapt organic beings to his own uses, through the accumulation of slight but useful variations, given to him by the hand of Nature. But Natural Selection, as we shall hereafter see, is a power incessantly ready for action, and is as immeasurably superior to man’s feeble efforts, as the works of Nature are to those of Art. (50)

As Darwin transitions from artificial to natural selection, in other words, it becomes clear that nature is envisaged as nothing more or less than the most effective, efficient, and powerful *breeder*. It is given over to limitless production and growth (just as it was for Rousseau) until such a time as that growth becomes curtailed by the pressures of population (as stipulated by Malthus). Note, moreover, the value judgements that are used in Darwin’s account: “great

results,” “useful variations,” “immeasurably superior.” While this is not the same as Rousseau’s claim that man in nature evolved towards a more “perfect” state, the parallels with Rousseauist natural history are plain. Indeed, Rousseau’s argument in the *Discourse on Inequality* seems precisely to recall this process whereby those who survive become stronger for it. As Rousseau puts it, in the “state of nature,” so-called “natural man” gains “strength” and “vigor” precisely by responding to the external pressures placed upon him by the environment:

Accustomed from childhood to the inclemencies of the weather, and the rigor of the seasons, to overcoming fatigue, and forced to defend themselves and their prey naked and unarmed against other wild beasts by running faster, men develop a robust and almost unvarying temperament. Children, coming into the world with the excellent constitution of their fathers, and strengthening it by the same exercise which produced it, thus acquire all the vigor of which the human race is capable. Nature treats them precisely as the laws of Sparta treated the children of its citizens; it makes those who are already well constituted strong and robust, and it makes all the others die. (82)

This seemingly cold and heartless model of nature clearly aligns with the Malthusian and Darwinian—even Spartan—mantra of the survival of the fittest. Indeed, even though Rousseau’s understanding of nature here is characterized by a lack of variability (it produces man’s “unvarying temperament”), his account of “well-constituted” individuals thriving while “all the others die” has a decidedly Darwinian shape. As Maurice Cranston argues in his “Introduction” to the *Discourse on Inequality*, while Rousseau

does not hold the view later taken by Darwin that man has evolved from cousins of the apes; he does suggest that man developed from a very primitive biped into the

sophisticated creature of modernity, and that the evolution can largely be understood as a process of adaptation and struggle. (30)

Not only does this demonstrate the extended tradition into which Darwinian nature fits, it also suggests that Rousseau was not even particularly removed from Hobbes in his understanding of the “work of life” within the “state of nature,” even though he was perceived as such during the eighteenth century. Rousseau himself insisted on his distinction from Hobbes, arguing that Hobbes’s account of the “state of nature” was actually influenced by “concepts formed in society.” Rousseau implied, in other words, that his own understanding of nature was *more natural or purer* than Hobbes’:

Philosophers who have examined the foundations of society have all felt it necessary to go back to the state of nature, only none of them has succeeded in getting there; all of them, talking ceaselessly about ‘need,’ ‘greed,’ ‘oppression,’ ‘desire’ and ‘pride,’ have transported into the state of nature concepts formed in society; they speak of savage man, but they depict civilized man. (*Discourse 78*)

Rousseau clearly takes aim at Hobbes here and, as Christopher Brooke notes, he was resultantly characterized within the eighteenth century as Hobbes’ philosophical antithesis. This is evidenced, for example, by Denis Diderot’s entry on “Hobbism” in the *Encyclopédie* (1765):

The philosophy of Monsieur Rousseau of Geneva is almost the inverse of that of Hobbes. The one thinks man naturally good, and the other thinks him wicked. For the philosopher of Geneva, the state of nature is a state of peace; for the philosopher of Malmesbury it is a state of war. If you follow Hobbes, you are convinced that laws and the formation of society have made men better, while if you follow Monsieur Rousseau, you believe that they have deprived him. (27)

To a certain extent, this opposition between the two thinkers is true. Nevertheless, it also somewhat overemphasizes the contrast, particularly with regard to their respective views on nature. As Brooke argues, “Hobbes may very well have envisaged more violence in a pure state of nature than Rousseau did, but Rousseau’s state of nature was certainly not free of violence, as his fragment on ‘The State of War’ makes clear” (20). In this fragment Rousseau argues that the reason why there is no “war” in nature, as Hobbes claimed, is because war is a product of states, civilizations and nations. In nature, Rousseau claims, “there may be fights and murders, but never or very rarely extended enmities and wars” (“State” 166). In other words, life in the state of nature for Rousseau may still resemble the Hobbesian or Darwinian “struggle” (filled with “fights and murders”), but it is not until the development of nation states that something as organized as war breaks out. More importantly for our discussion of Darwin and later Darwinian thinkers, we find in Rousseau the drive to make sense of the world by way of the most thoroughgoing return to nature possible. According to Rousseau, Hobbes in his assessment of nature, never “succeeded in getting there.” He never got close enough to the actual ontology of the natural world. As we will see momentarily, particularly for twentieth-century thinkers such as Richard Dawkins, this implicit idea that behavior will be explained if only we can succeed in getting an accurate description of “nature” continues to be a powerful governing force in evolutionary biology.

Where Rousseau clearly differed from Hobbes was in his belief, mentioned above, that the hardships of nature were productive of “well constituted, strong, and robust” individuals. For Rousseau, as for Darwin, the “struggle for life” encouraged humankind’s development into stronger and better adapted beings. Nature, therefore, was not something to be feared, in the same way that it was for Hobbes. In fact, Rousseau believed that if such a state of nature could be recovered, the conditions of possibility for man’s development might resume.

In relation to the above discussion of Rousseauist masturbation, therefore, this clearly explains why masturbation posed such a vital threat to “life itself” (*Confessions* 106). Masturbation quite literally prevents human beings from the physical, moral, and social evolution of which they are capable. It leads them away from their “well-constituted” existence, condemning them, like the children of Sparta, to die (106). Masturbation must be prevented, in other words, in order for man to return to so-called nature, allowing them to live, survive, and evolve.

Darwin, for his part, clearly lacks the moral dimension of Rousseau’s natural philosophy. Darwin is not interested (as many of the social Darwinists and eugenicists that followed him were) in developing a perfect system for mankind to evolve in. He is not, at least from a natural philosophical perspective, concerned that something must be done about masturbation in order to preserve the human species, and he certainly does not see human beings as in any sense more “sophisticated” than the other creatures of the plant and animal kingdoms. For Darwin, in contrast to Rousseau, therefore, nature simply works; it does not strive towards moral or social improvement. Returning to nature—were that possible—would not necessarily benefit mankind. Thus, while Darwin and Rousseau certainly share an emphasis on survival through struggle, for Darwin the survivors are simply those who are best suited to the particular environment in which they find themselves. This means that, in strictly Darwinian terms, the tiniest micro-organism is as well adapted as the most “sophisticated” of mammals.

Many theorists have relied on this apparent lack of morality in Darwin to claim that his natural history and his science are divorced from the political theories that influenced them. Darwin’s *Origin*, according to this line of reasoning, is as neutral as the model of nature he proposes. This claim is evident, for example, in the work of Scott Gordon (1989), who argues that

Malthus's models of economic competition were different from Darwin's models of biological competition. He argues that Malthusian political economy did not provide anything "important for the theory of natural selection" (457). In a similar gesture, Daniel Dennett acknowledges Darwin's intellectual debt to Malthus, but he argues that this debt was "purely logical," devoid of any *ideological* importance:

The idea of natural selection was not itself a miraculously novel creation of Darwin's but, rather, the offspring of earlier ideas that had been vigorously discussed for years and even generations... Chief among these parent ideas was an insight Darwin gained from reflection on the 1798 *Essay on the Principle of Population* by Thomas Malthus, which argued that population explosion and famine were inevitable, given the excess fertility of human beings, unless drastic measures were taken. The grim Malthusian vision of the social and political forces that could act to check human overpopulation may have strongly flavored Darwin's thinking (and undoubtedly has flavored the shallow political attacks of many an anti-Darwinian), but the idea Darwin needed from Malthus is purely logical. It has nothing at all to do with political ideology, and can be expressed in very abstract and general terms. (40)

Of course, the idea that anything—but particularly a scientist's reading of a work of *political* theory—might have "nothing at all to do with political ideology" is at best suspect and at worst non-sensical. The casting of the so-called anti-Darwinians (a rather diffuse category) as merely intellectually or emotionally "shallow" is indicative of a strange need here (1) to dissociate Darwinism from political ideology altogether; and (2) to denigrate others who point out the clear connection between Darwinian logic and certain understandings of not only politics but also the natural world. Indeed, as I have argued, it is not simply the political or social theory of

Malthus and Rousseau that is relevant to Darwinian thinking but the understanding of nature that results from them. As Dennett even notes, it is Malthus's insistence on the "excess fertility" of human beings (which is quite precisely a claim of natural philosophy rather than political theory) that provides Darwin with part of his "insight" into evolution. In fact, this attempt to dehistoricize Darwin seems to be characteristic of a strategy among evolutionary theorists to present *as natural* one particular economic understanding of nature. It is, notably, the same strategy employed by Rousseau against Hobbes: the argument is that the so-called "anti-Darwinians" have not "succeeded in getting" to nature, whereas Darwin's theory manages to be wholly and purely about nature because it is simply based on biology. Dennett again reveals as much when he argues that "the economic metaphors that *come so naturally to mind* when one is thinking about evolution get their power from one of the deepest features of Darwin's discovery" (40; my emphasis). What that feature is, Dennett tellingly neglects to say. Nevertheless, he clearly inverts the relationship between economics and nature by claiming that the former is simply the *natural* result of the latter.

In reality, as the above reading of Darwin's theory shows, the debt that the *Origin of Species* owed to Malthusian competition models and Rousseauist natural philosophy went far beyond the "purely logical." As Donna Haraway notes in *Staying with the Trouble* (2016), the biases of this genealogy have gone on to dominate much of the history of evolutionary thought. Haraway praises the insights of evolution while remaining wary of its economic and political blind spots:

Since Darwin's *On the Origin of Species* in 1859, biological evolutionary theory has become more and more essential to our ability to think, feel, and act well; and the interlinked Darwinian sciences that came together roughly between the 1930s and 1950s

into the “Modern Synthesis” or “New Synthesis” remain astonishing. How could one be a serious person and not honor such works as Theodosius Dobzhansky’s *Genetics and the Origin of Species* (1937), Ernst Mayr’s *Systematics and the Origin of Species* (1942), George Gaylord Simpson’s *Tempo and Mode in Evolution* (1944), and even Richard Dawkins’s later sociobiological formulations within the Modern Synthesis, *The Selfish Gene* (1976)? However, bounded units (code fragments, genes, cells, organisms, populations, species, ecosystems) and relations described mathematically in competition equations are virtually the only actors and story formats of the Modern Synthesis. Evolutionary momentum, always verging on modernist notions of progress, is a constant theme, although teleology in the strict sense is not. (62)

As mentioned in the introduction, the most influential of these later versions of Darwinian theory for the understanding of biocultural adaptation—the one most frequently deployed by adaptation theorists—has been Richard Dawkins’ argument in *The Selfish Gene* (1976). Indeed, while Dawkins slightly modifies the political and economic emphases of evolution (one finds no explicit mention of Rousseau and Malthus in his work, for instance), he rarely strays far from their principles of limitless reproductivity and competition for resources. In what follows, I demonstrate how this leads to a highly gendered division of biological labor in Dawkins’ evolutionary models, a division that then becomes the supposedly natural justification for certain gender hierarchies. These hierarchies determine the understanding of evolutionary nature presented in *Adaptation*, as well the evolutionary fantasy that the film represents.

“I Don’t Mean Physically Enjoy, Although He Might...”

There is relatively little in-depth discussion in Darwin (certainly the Darwin of *Origin* if not the Darwin of *Descent*), of the gendered division of biological and sexual labor and reproduction. For Richard Dawkins, however, notions of sexual difference are central to his theory of evolution by means of genetic replication.

As mentioned briefly in the introduction, the central thrust of Dawkins' argument in *The Selfish Gene* (1976) is that "Darwin's 'survival of the fittest' is really a special case of a more general law of *survival of the stable*" (15; emphasis in original). What this means is that evolution primarily involves the development of ever more stable and efficient systems for ensuring the replication of genes. In humans, as in most multi-cellular organisms, one of the most common systems for this is sexual reproduction. Importantly, for Dawkins, this system is then used to provide an underlying genetic and biological basis for a host of animal and human behaviors, many of which rely on decidedly heteronormative gender roles. These roles, Dawkins argues, are simply the natural result of the need to ensure the evolutionarily stable replication of genes.

In Dawkins' account, these roles start off balanced. He begins by noting that, when two isogametes fuse in sexual reproduction, "both contribute equal numbers of genes to the new individual" (182). In larger organisms like humans, which are typically produced via the fusion of a single sperm and a single egg, this means theoretically that a father and a mother should both be "interested in the welfare of different halves of the same children," corresponding to the respective 50 per cent of the child's genes that they have each contributed (182). Given this seemingly balanced investment, Dawkins claims, "there may be some advantage for both of them in cooperating with each other in rearing those children" (182). However, he continues:

If one parent can get away with investing less than his or her fair share of costly resources in each child... *he* [no longer she?] will be better off, since he will have more to

spend on other children by other sexual partners and so propagate more of his genes.

Each partner can therefore be thought of as trying to exploit the other, trying to force the other to invest more. Ideally, what an individual would 'like' (I don't mean physically enjoy, although he might) would be to copulate with as many members of the opposite sex as possible, leaving the partner in each case to bring up the children. (182; my emphasis)

That little parenthesis seems telling. It shows that Dawkins is quite careful to divorce his biological law from anything close to a sexual or psychological pleasure principle. Before we consider this further, however, let us note that Dawkins' argument clearly extends the Rousseauist, Malthusian, and Darwinian understandings of nature in its insistence on the necessary, inherent, and now genetic, disposition of biological organisms to reproduce or replicate (to "propagate more... genes"). What has changed is that Dawkins' argument focuses less on the reproduction of actual organisms and more on the systems within which those organisms interact. Dawkins examines systems of behavior, rather than supposedly eternal laws. As Donna Haraway argues, "the point of systems design is optimization," and "optimization does not mean perfection" (*Simians* 64). An evolutionarily stable strategy, in other words, simply "has to be good enough to survive under given conditions. Nature can be lazy, and seems to have abandoned a natural theological project of adaptive perfection" (64).

Thus, the sense of Rousseauist perfectibility is entirely absent from Dawkins' account, as it was from Darwin's. Indeed, the worry for Dawkins is no longer the lazy, Rousseauist masturbator, but the average disposition of sexual fertility within the generalized evolutionary economy. Indeed, this is precisely how masturbation is explained within Dawkins' argument; it is presented as a secondary or belated outcome of gene replication through survival machines. In a

theoretical example proposed by Dawkins in which genes reward human beings for certain pleasurable behaviors (a genetic pleasure principle), Dawkins suggests that “sweet taste in the mouth and orgasm are going to be ‘good’ in the sense that eating sugar and copulating are likely to be beneficial to gene survival. The possibilities of saccharine and masturbation are not anticipated” (74). Masturbation and a sweet tooth, in other words, are simply side effects. As long as masturbation does not come to alter or predominate within the stable procreative economy, there is no threat to the ability of fundamentally selfish genes to replicate. Charlie can masturbate some of the time, as long as he eventually has heterosexual intercourse, or as long as, overall and in the main, enough men and women have heterosexual intercourse to outweigh Charlie’s chronic masturbation. In other words, as long as Donald is out there “trying to do” it on Charlie’s behalf, the overall procreative economy remains “evolutionarily stable” (Dawkins, *Selfish Gene* 15).⁴⁵

In terms of the reproductive differences between males and females, the balance of Dawkins’ stable procreative economy plays out as an unfolding game of mutual exploitation in which “both partners, as selfish machines, ‘want’ sons and daughters in equal numbers” but both try to invest as little energy as possible in the process:

Each individual wants as many surviving children as possible. The less he or she is obliged to invest in any one of those children, the more children he or she can have. The obvious way to achieve this desirable state of affairs is to induce our sexual partner to invest more than his or her fair share of resources in each child, leaving you free to have

⁴⁵ Note that, in the film, Charlie is only compelled to return to the evolutionary economy once Donald has died. At this point, Charlie’s masturbation is no longer an evolutionarily “stable strategy,” in Dawkins’s terms. As a result, the film implies, Charlie’s intercourse with Amelia must now fill the void that has been left by Donald’s departure.

other children with other partners. This would be a desirable strategy for either sex, but it is more difficult for the female to achieve. (*Selfish Gene* 190)

The reason why it is more difficult for a female to achieve, Dawkins argues, is due to a fundamental and quantitative disparity in sexual difference. Dawkins views sexual difference in *purely* mathematical terms, defining it, empirically, by the number of sex cells that an organism produces: “the sex cells or ‘gametes’ of males are much smaller and more numerous than the gametes of females. This is true whether we are dealing with animals or plants” (183). Note, incidentally, that while Dawkins moves away from the distinction between penises and vaginas, the fundamentally visual or empiricist nature of sexual difference is as difficult for him to shake as it was for Freud: as mentioned in the introduction, what matters from peacocks to people is who has got more. What derives from this “isogamous” state of affairs in biology, Dawkins argues, is an imbalance between male and female “investment” in reproductivity (185). According to Dawkins, since males across all species produce more numerous gametes, they can afford to be more wasteful with them than females:

Since she starts by investing more than the male, in the form of her large, food-rich egg, a mother is already at the moment of conception ‘committed’ to each child more deeply than the father is. She stands to lose more if the child dies than the father does. More to the point, she would have to invest more than the father in the future to bring a new substitute child up to the same level... Therefore, at least in the early stages of child development, if any abandoning is going to be done, it is likely to be the father who abandons the mother rather than the other way around... The female sex is exploited, and the fundamental evolutionary basis for the exploitation is the fact that eggs are larger than sperms. (190)

Thus, Dawkins is led, supposedly naturally, from the disparity between the relative sizes of eggs and sperms to an “evolutionary basis for the exploitation” of females (190). Note also, incidentally, the temporal nature of the discussion; as there were for Rousseau, there are threats to life in both the present and the future. The female is compelled to be more protective of a currently existing child and also risks more of her life if she is forced to bring up a “substitute child” in the future (190). What this means, however, is that while the threat posed by disinvestment from life (what Dawkins calls “abandoning”) is as real for Dawkins as it was for Rousseau, in Dawkins it is no longer the male masturbator who has to worry about it (190). All of the obligation to invest in present and future life, to “not allow the goal of nature to be eluded,” is now placed squarely in the hands of the female egg-carrier (Stelzig 54). This is because, whereas males get almost limitless chances to fertilize females, females must make do with only a limited number of eggs. The major threat to life, in other words, is female underperformance on the biological production line. The “spilling of semen” is no longer the risk; the risk is running out of eggs.

We should probably recall, in passing, Simone de Beauvoir’s exposure of the rather ludicrous fantasy by which evolutionary theory naturalizes the logic of female oppression through an appeal to the ontology of eggs: “If one is a bit scrupulous,” Beauvoir writes, “one has to agree that it is a long way from ovum to woman” (*The Second Sex* 29). I explore Beauvoir’s challenge to the biological essentialism of evolution in Chapter Three. In this chapter, though, the point of returning to these bio-sexual fantasies is to point out that there is a rather significant through line from Rousseau’s and Lewis’s accounts of masturbation, which we dealt with above, to the gendered sexual economy described by Dawkins. Even the language that Dawkins uses to capture the purported sexual expansiveness of the male libido and its corresponding procreative drive

recalls the descriptions of Lewis and Rousseau: “one male can theoretically produce enough sperms to service a harem of 100 females” (186). In other words, what appeared for Rousseau as the most unnatural and dangerous of all fantasies (the “harem of imaginary brides” placed at man’s “disposal”) is revealed by Dawkins to be simply the reality of evolutionary biology.

Admittedly, Dawkins claims that this makes the male, in evolutionary terms, “more ‘expendable’, and the female more ‘valuable,’” but it is nevertheless uncanny how the so-called “work of life” has come to reflect the exact same masturbatory fantasy that Rousseau and Lewis once feared (186). What Dawkins’s evolutionary model provides, in other words, is a supposedly biological basis for a gendered hierarchy. Biologically, Dawkins argues, men are obliged to have as much sex as possible with as many women as they can find. Women, on the other hand, must nurture their investments through limited sexual exploits, dedicating themselves to their children and avoiding “excess copulations:”

In general, males should tend to be more promiscuous than females. Since a female produces a limited number of eggs at a relatively slow rate, she has little to gain from having a large number of copulations with different males. A male on the other hand, who can produce millions of sperms every day, has everything to gain from as many promiscuous matings as he can snatch. Excess copulations may not actually cost a female much, other than a little lost time and energy, but they do not do her positive good. A male on the other hand can never get enough copulations with as many different females as possible: the word excess has no meaning for a male. (213)

In response to their supposedly biologically ordained exploitation, Dawkins argues, females employ various strategies to increase male investment in child rearing. One that he is particularly fond of is what he calls the strategy of the “coy female” (199). This involves a female

refusing intercourse with a male until he has helped her to “build a nest” for their offspring. This forces the male, Dawkins claims, to invest more time and energy into the bioeconomic equation:

A female might refuse to copulate with a male who has not already built her a nest, or at least helped her to build a nest. It is indeed the case that in many monogamous birds, copulation does not take place until after the nest is built. The effect is that at the moment of conception the male has invested a good deal more in the child than just his cheap sperms. (199)

During all this talk of “coy females” and the “fundamental evolutionary basis for exploitation,” Dawkins is careful to keep the rather murky implications that his theory has for human beings at a distance (“I have not talked explicitly about man,” he says). When he does turn to human beings, however, he cannot help but be lured in by precisely the same economic models that he had previously applied to birds: “notions of females withholding copulation until a male shows some evidence of long-term fidelity,” he argues, “may strike a familiar chord” (213). (A familiar chord for whom, we might wonder, though it is obviously not our place to speculate.) According to Dawkins, in other words, the give and take between males trying to have as much sex as possible and females trying to withhold it (until the time is right) provides the paradigm for evolutionary stability in humans. The fact that this paradigm also seems to resemble a male, heterosexual utopia (a utopia, recalling Žižek, of “full jouissance,” in which it is man’s prerogative to cycle through as many women as possible) is simply a pleasurable side-effect of natural laws (80). Now, incidentally, we understand Dawkins’ precaution in the parenthesis mentioned above: “Ideally, what an individual would ‘like’ (I don’t mean physically enjoy, although he might) would be to copulate with as many members of the opposite sex as possible” (182). This bracketing is intended to make it seem like it is only a coincidence that the biological

laws described by Dawkins end up resembling a male heterosexual fantasy, rather than a necessary result of the economic theories he employs. It is the equivalent of Dennett's and Rousseau's attempts to disavow the social and cultural influences that have structured their theories of nature. Dawkins pretends that his economy and his gendered hierarchies are the result of natural laws, rather than the other way around.

Donna Haraway provides perhaps the fiercest critique of the "status quo rationalizations" of these models of evolutionary biology, highlighting their "extensive and explicitly sexist, racist, and classist" formulations (*Simians* 66). She points to their tendency to glide "into facile naturalizations of job segregation, dominance hierarchies, racial chauvinism, and the 'necessity' of domination in sexually based societies" (67). I would now like to consider how these models of gendered domination and male sexual fantasy underwrite *Adaptation*'s representation of Charlie's evolutionary crisis.

As mentioned, within Dawkins' generalized and game theoretical economy, it is not necessarily a problem that Charlie is masturbating rather than having heterosexual intercourse. However, within the narrative of evolution in general, non-procreative sexuality cannot be allowed to predominate over procreative intercourse. If Charlie is to do his part for mankind, in other words, if he is to return to life and become the hero of his film, he must at some point rejoin the "the work of life." It seems like the film's efforts to reincorporate Charlie into this economy reach their culmination in its closing sequence, when Charlie tells Amelia that he loves her. Amelia, in Dawkins' terms, is the paradigm of the "coy female," remaining (even if only in Charlie's mind) always out of reach. Charlie, by contrast, is the wasteful and promiscuous male, profligately disposing of his semen at night while cycling through his imaginative series of lovers. Moreover, the fact that it is Amelia *specifically* who is the only one who reciprocates

Charlie's desires does not really matter. This is because, within the framework of evolution, it is guaranteed that at least one woman from among the "harem" (if not all of them) will eventually want to have sex with Charlie, if only after he has "invested" enough in their reproductive future. This, evolution supposedly predicts, is the natural order of things: the male sexual utopia, in other words, will eventually become the reality.

What this suggests, however, is not simply that Charlie *adapts*, over the course of the film, to the pressures of an evolutionary reality principle in order to align with the "goal of nature," but quite precisely that he manages to *adapt reality* so that it aligns with his fantasy. In order for the happy ending of *Adaptation* to occur, Amelia—quite literally, one of the girls of Charlie's dreams—is forced to give up her own reality so that she can conform to his. In the early stages of the film, Amelia quite clearly rejects Charlie. He asks her whether she would like to attend an orchid convention with him, to which she says no. The next time they meet, Amelia has a boyfriend, a love interest that she continues to maintain right up until the very end of the film. However, in the film's closing sequence, all of this is forgotten as Amelia suddenly becomes Charlie's willing sexual partner (telling him: "I love you too, Charlie"). In this way, Amelia's "reality"—Amelia as a "real woman" in C. S. Lewis' terms—is made to conform precisely to Charlie's heterosexual fantasy, as well as to the so-called laws of an evolutionary utopia. This is why it is not necessarily important whether we view this closing sequence as a return to reality, or if we take it simply to be another of Charlie's fantasies. The point is that Amelia's reality coordinates with those fantasies either way. More importantly, as I argue in the final section of this chapter, the film *naturalizes* these fantasies precisely as a means of disguising their mechanisms of domination and control. In so doing, it arguably also naturalizes its own work as an adaptation of Susan Orlean's *The Orchid Thief*.

Orlean Disparue

Many scholars have pointed out that, while *Adaptation* initially resists the melodramatic excesses of Hollywood fantasy, it descends further into them as the film progresses. When he is first commissioned to adapt *The Orchid Thief*, Charlie starts out by telling Valerie Thomas that he does not want to ruin it “by making it a Hollywood thing.” As he puts it: “I don’t want to cram in sex or guns or car chases, you know? Or characters, you know, learning profound life lessons. Or growing, or coming to like each other, or overcoming obstacles to succeed in the end.” As mentioned above, he states in McKee’s screenwriting seminar that he wants to write a screenplay in which “nothing much happens, where people don’t change, don’t have any epiphanies; they struggle and are frustrated, and nothing is resolved, more a reflection of the real world.” As Jeff Schieble (2015) argues, however, the last third of the film

self-consciously and ironically crams in all that Charlie was trying to keep out. The film unravels, sweeping into its narrative orbit everything its main character wanted to avoid: sex via an unlikely romance between Susan and her orchid-expert muse John Laroche; a drug-running scheme that Charlie discovers Laroche is orchestrating in Florida; and a fast-paced car chase to a swamp where Susan and Laroche run Donald and Charlie down, leaving Donald shot dead and Laroche killed by an alligator. (57)

Similarly, Timothy Corrigan (2017) notes that the film “madly expands” as it goes on, becoming “a mystery story about drugs and death, an action film with car crashes and man-eating alligators, and ultimately a parable about the triumph of commerce and industry as Charlie forsakes his quest for a pure adaptation of the *New Yorker* story” (24). In the film’s culmination, in other words, Orlean and the text of *The Orchid Thief* largely disappear as *Adaptation* gets lost

in precisely the kind of Hollywood ending that Charlie claimed he wanted to escape. Schieble labels this the “bad narrative Charlie tries to avoid in the film” but to which he ultimately ends up succumbing (62).

Schieble argues that this descent into Hollywood fantasy is an ironic, postmodern commentary on the processes of Hollywood adaptation. Focusing on the film’s relation to the new media economy of turn-of-the-century America, Schieble argues that “the film’s self-reflexive anxieties over writing, ending, and selling out are imbricated in a critique of the dominant social and cultural values” of the dot-com era (63). Incidentally, it is interesting that this suggests that Corrigan’s and Schieble’s readings are almost diametrically opposed: for the former it is a “parable about the triumph of commerce;” for the latter it is a critique of the Hollywood film industry (24). Whether we read the film ultimately as a critique of selling out or as selling out itself is probably a matter of how generous we wish to be to Charlie and of how self-aware we think the film is (it is, admittedly, very self-reflexive). Either way, though, the film does not seem to question what is implicitly presented as the obverse of this Hollywood corporatism: namely, the so-called natural world and, by extension, the narrative of biological evolution. In other words, even if the film can be said to parody the romantic fantasies of Hollywood, it does not seem to recognize or consider the other fantasy on which it relies: namely its investment in a Rousseauist and (post-)Darwinian model of an endlessly fertile and heteronormalized nature.

As Schieble argues, one of the ways in which the film seems to critique the dominant logic and values of Hollywood, particularly as they existed at the start of the twenty-first century, is through yet another juxtaposition between Charlie and Donald. Schieble notes that the kind of screenplay that Donald writes—one for a genre film that simply repeats the tropes of

Hollywood—fits nicely with the apparatus that he uses to write it: a laptop computer, a symbol of the new age of fast media, image circulation, and digital technology. Charlie, by contrast, ever the thinking man’s auteur, writes on a typewriter, a symbol of analogue purity that, even by 2002 (with Microsoft Windows XP having launched the previous year) was already becoming an object of nostalgia, a throwback to the heady days of romantic, authorial invention.⁴⁶ This juxtaposition parallels the other elements of Donald and Charlie that we have identified in this chapter: Donald’s fast-paced, carefree approach to sex, art, and life; Charlie’s slow and self-questioning deliberations, his cautious approach when talking to women. In techno-evolutionary terms, we could even say that Charlie’s typewriter offers an implicit but nonetheless legible suggestion that he is something of a dinosaur: out of place, stuck in the past, on the brink of extinction.

Furthermore, Schieble notes that Donald’s laptop is also linked with one of the other computers in the film: that of John Laroche. Laroche, who is the film’s emblem of capitalist entrepreneurship (“my whole life is looking for a goddamn profitable plan”), at one point ditches orchid collecting to begin selling pornographic pictures over the internet. In one of the starkest deviations from *The Orchid Thief*, Orlean calls Laroche in his apartment and asks him how he’s doing. “I’m great,” he replies, “I’m training myself on the internet. It’s fascinating. I’m doing pornography. It’s amazing how much these suckers will pay for photographs of chicks.” In this scene, Hollywood’s commercialization of the image (specifically, the image of the female body) is shown to find its logical culmination in pornography, with both industries sharing in the new

⁴⁶ Orlean, incidentally, working somewhere between fast-paced journalism and meandering, old-fashioned *New Yorker* authorship, oscillates between handwritten notebooks and a desktop computer.

mode of consumption that is symbolized by Donald's and Laroche's respective computers.

Schieble argues that Laroche's new business

is part of the film's deeper theme and narrative of selling out, which we see enacted in the fundamental conflict of interest between Charlie and Donald. Laroche's new embrace of internet porn thus stands for the film's 'bad turn,' becoming a pivotal example of exactly those Hollywood clichés of sex and money that Charlie did not want to sensationalize in his script. (62)

If pornography and Hollywood clichés are the result of image production taking a "bad turn," then this is in contrast to what Schieble identifies as the good kind of image production that Charlie longs, at least initially, to represent on screen. Schieble argues that this is encapsulated in Charlie's desire, as Charlie himself puts it, to make a movie that is "simply about flowers."

Schieble takes this view from Joshua Landy (2011), who argues that this hypothetical floral film—the film that Charlie never quite gets to make—is nonetheless glimpsed in *Adaptation's* finale, directly after Charlie's and Amelia's declarations of love. It occurs, as Charlie describes in his voiceover, while "he drives home after his encounter with Amelia, filled for the first time with hope." As Charlie's car disappears into the busy Los Angeles traffic, there follows "a time-lapse sequence of daisies on a meridian, an astonishingly powerful sequence... set to music that ends in a lush, ethereal harmony" (Landy 509). That harmony, incidentally, is "Happy Together" by The Turtles, released in 1967, during the Summer of Love, an ode to connected human and biological intercourse if ever there was one ("Imagine me and you, I do / I think about it day and night, it's only right"). Landy asks whether the entire film might not have been simply building up to these flowers, "making them possible, turning them into something that can be noticed" (509)?

Schieble, agreeing with Landy, argues that *Adaptation*, as a "postmodern" film, "delivers an

exaggerated, complex and overstuffed narrative to satiate our desire for narrative beyond any doubt, so that by the time we see the flowers that close the film, we appreciate them” (58). This suggests, finally, that “the entire rest of the film we have seen until this point, with all its loopholes and fictions, has cancelled itself out to finally become a film ‘simply about flowers’” (58).

In this way, the film supposedly works out its anxieties about the “bad narrative” of Hollywood and pornography in order to return, in its closing moments, to *nature*. Pornography, in other words, which could be considered a literalization of the “harem” of women placed at men’s “disposal” by the masturbatory imaginary (Laroche’s wall and computer screen feature an endless supply of nudes) is rejected, in decidedly Rousseauist terms, in favor of a return to *life*. Schieble describes this as the “goal” of the film (corresponding with “the goal... of nature”) and argues that it “is successful” (Rousseau, *Émile* 38; Schieble 58). As Schieble puts it, by the time the credits start to roll, “the viewer has arrived at a point of being able to notice the flowers and appreciate them for what they are” (58). But what exactly does this mean? What does it mean to say that, by the end of *Adaptation*, we can finally appreciate flowers “for what they are?”

In a continuation of his argument about fantasy, Slavoj Žižek argues that this idea of a pure, unadulterated and untainted nature—a world “simply about flowers”—is precisely characteristic of a humanist dream of an unattainable utopia. It is unattainable, as I mentioned above, because its very condition of possibility is the exclusion of the human: a film that was “simply about flowers” would be one from which human beings were necessarily absent. The world of such a film would show us “what would happen if humanity (and *only* humanity) were suddenly to disappear from the earth—natural diversity would bloom again, with nature gradually colonizing human artefacts” (80). In the case of *Adaptation*, that dream is even perhaps

represented by the possibility that nature might colonize and supplant the city of Los Angeles (as indeed the flowers of the final sequence do when they rise up to cover the screen). More speculatively, therefore, this would mean that they would colonize American cinema itself, which, fittingly, is most recognizably symbolized by an emblem of capitalist production taking over a natural landscape: the Hollywood *sign* (originally put up as a commercial advertisement for a real estate venture, a literal land grab).

Žižek aligns this fantasy of a return to *pure* nature with the seemingly common human urge to create a variety of different forums for presenting and representing the natural world (“the zoo, the circus... state parks... hunting grounds, television channels,” to which we might add orchid shows and daisies on the meridian, 81). Building on Gérard Wacjman’s argument in “The Animals that Treat Us Badly,” Žižek argues that these forums fascinate us precisely because they “represent for us a perfect world. Something strange, different from our own, from our uncertain screwed up chaotic mess of a world” (81). In Chapter Four, I explore how Peter Greenaway endeavors to deconstruct these representational forums—most notably the zoo and the nature documentary—by highlighting their alignment with particular mechanisms for controlling and policing the natural world. In relation to *Adaptation*, though, we can say that, according to Wacjman, the fascination that we seem to take in looking at these depictions is that:

We wonder whether we could ever be like them, ever become so marvelous a society as have the ants and the penguins, where everyone has his place, where everyone is in his place, and where everyone knows and does exactly as he must so that everything can keep on in its proper place, so that society can perpetuate itself, unchanged, indefinitely the same and infinitely perfect. (qtd. in Žižek 81)

For Žižek, the desire for this utopia precisely explains “the popularity of Darwinist reductions of human societies to animal ones, with their explanations of human achievements in terms of evolutionary adaptation” (81). These reductions, according to Žižek, are found in the “pop-scientific texts,” mentioned in the introduction, that “abound in journals and reviews reporting on how scientists have succeeded in explaining apparently crazy or useless human behavior as grounded in adaptive strategies. (Why such useless luxury? To impress the potential sexual partner with our ability to afford such excess, and so on and so forth)” (81). More importantly, though, Žižek argues that this utopia results precisely from the dream that we might be able to recover a “state of nature,” a state that this chapter has aligned with Rousseau’s natural philosophy. In that state, we would then be able to “counteract the growing dysfunctionalization and reflexivity of our ‘postmodern’ societies, in which relying on inherited traditions to provide models for behaviors becomes increasingly untenable” (82-3). We might, in other words, simply get to be like flowers, like the plants and animals who, tellingly, “do not need any coaching, they *just do it*” (83). For this, Žižek argues, is one of the “key elements in our fascination with the animal kingdom”: namely, “its perfectly regulated mating rituals.” Since “the basic inconsistency constitutive of human being as such is the discord (the ‘impossibility’) of the sexual relationship,” the fascination with animals and plants is that they “do not need to worry themselves with all the complex fantasies and stimulants needed to sustain sexual lust” (83). They can, as Wacjman puts it, “have sex ahistorically” (qtd. in Žižek 83).

It is this, then, that Charlie ultimately seems to dream of. He longs to throw off the yoke of Hollywood, with all its guns and car chases and pornographic images. He longs for a world in which everyone can be unashamedly and unproblematically “just trying to do” it, a world where, as mentioned, at least one woman (and probably many more—it does not really matter to him

who they are) will want to have sex with him. We can say, therefore, that even as the film supposedly mounts a challenge against the “bad,” pornographic fantasies of Hollywood cinema, it nonetheless installs another more general fantasy in their place, one in which (conveniently or not) *nature itself* looks very much like the male masturbatory paradigm that the film had hoped to leave behind. That fantasy, in Žižek’s terms, is one of “full jouissance,” one which reassures the fragile male imaginary that, in the overall scheme of life coordinated around Dawkins’ evolutionary economy, “coy females” like Amelia will eventually come around to masturbating Charlies because their “evolutionary exploitation” is ordained precisely *not* by Hollywood but by biology.

Finally, I would argue further that this evolutionary fantasy also means that, when the film’s closing sequence, which is “simply about flowers,” finally arrives, we are primed in advance to take it as a *natural*, rather than a strategical and historicizable, representation. That we should perhaps be suspicious of this, however, is apparent from what is conspicuously absent from this ending: namely, any focus on Orlean or on *The Orchid Thief* itself (it is notable that even the book’s purported focus, the orchids, are absent too, having been replaced by daisies on the meridian). In general, therefore, regardless of whether we view the film as a “faithful,” “unfaithful,” “fertile,” or “creative” approach to Orlean’s work, it cannot be denied that she and *The Orchid Thief* are progressively drowned out across the film as a whole, not only by Charlie’s “narcissistic” anxieties but also by the journey that he undertakes to overcome them. That this journey is coded in specifically evolutionary and biologically adaptive terms encourages the audience to accept Charlie’s subsuming of Orlean and her work as part of a natural process of overcoming (even, in evolutionary terms, as the result of the “survival of the fittest”). In other words, in the same way that the film tries to naturalize Charlie’s ultimate union with Amelia, it

also somewhat naturalizes its own rewriting of *The Orchid Thief*. While it is true that Charlie spends a good deal of time agonizing over this rewriting, nevertheless the film he ends up writing is, to a certain extent, *sanctioned* precisely by the evolutionary narrative it deploys. The film suggests, in other words, that there is a supposedly “evolutionary basis for the exploitation of the female” *author* as much as of the female *body*. Orlean, in Charlie’s fantasy, becomes a “coy female” just like Amelia, appearing as elusive as the book that Charlie tries to adapt. Thus, just as the film makes it appear *only natural* that Amelia should give herself up to Charlie, so too does it imply that it is *only natural* that Charlie should rewrite Orlean’s work in the way that he does; *Adaptation*, in other words, presents itself simply as the necessary and purely biological end result of how *The Orchid Thief* evolved.

What this suggests, however, is quite clearly *not* that the process of adaptation is somehow *purely natural*, or that it depends on a kind of “creative fertility,” but rather that ideas about fertility, survival, nature, adaptation, and evolution can be deployed as representational strategies by adaptations, thereby naturalizing certain gender hierarchies and heteronormative fantasies (Boyd, “Making” 603). In the following chapter, I argue that such fantasies can also be identified in the work of Marcel Proust, in whose novel we encounter what is arguably the most extended example in the western canon of a male narrator’s attempt to represent the woman he desires as a supposedly “coy female”: Albertine. As with Charlie’s representations of Amelia and Susan Orlean in *Adaptation*, Proust’s narrator’s descriptions of Albertine tell us as much about his anxieties concerning artistic and biological adaptation and reproduction as they do about Albertine herself.

CHAPTER TWO

ALBERTINE IN THE “INNER DARK ROOM”: LIFE IN THE AGE OF MECHANICAL REPRODUCTION

Apart from their markedly different locations, plots, periods, and media forms, Marcel Proust’s *In Search of Lost Time* and Charlie Kaufman’s *Adaptation* have much in common. As well as their thematic concern with orchids, mentioned in the introduction, scholars have pointed to their complex temporal structures and their similarly “hazy time frames” (Dzialo, 2008, 107). I would add, moreover, that they both feature rather suffocating male narrators: just as Charlie’s “narcissistic” and “solipsistic” thoughts threaten to engulf *Adaptation* from start to finish, so too do the anxieties of Proust’s narrator manage to overwhelm both the reader and the characters of his novel. In this chapter, I will argue that those anxieties structure the narrator’s representation of nature, women, and media, all of which I explore specifically in relation to the character of Albertine. I will begin by laying out how each of those representations overlap with one another, outlining how a study of all three can generate a nuanced account of the intersection between biological and cultural production in Proust’s novel.

Introduction: From Albumen to Albertine

To begin with the question of media, *In Search of Lost Time* could be anachronistically characterized as a transmedia work of art. Proust’s novel constantly and actively blends different art forms, ranging across the aesthetics of painting, photography, theatre, music, architecture, and more. As a result, at one time or another, the novel has been variously claimed by scholars for different kinds of media and different aesthetic forms. John Hamilton (2015), for example, has

argued that “music... furnish[ed] an ideal method for the composition of the *Recherche*” (95), whereas for Mary Bergstein (2014), Proust was “the most photographic of all writers” (17). For Luc Fraisse (1990), the cathedral was Proust’s universal metaphor, whereas Julia Kristeva argued that his prose was “kinetoscopic” (*Proust*, 272). While debates such as these can sometimes devolve into an attempt to establish a hierarchy of Proustian aesthetics, what comes across in all of these studies is the sense that Proust’s writing is relentlessly combinatorial. The artworks and media forms that make up Proust’s sentences fuse together, forming what the narrator describes as multiple “layers of art” (*WBS* 43).⁴⁷ Roland Barthes, for this reason, claimed that Proust’s work was fundamentally hybrid, resulting in what he called a “third form, neither essay nor novel,” elusive and indefinable (“Longtemps” 281).

This multitudinous writing style also extends to Proust’s interdisciplinary interests, something which his early readers were quick to notice. Virginia Woolf, for example, claimed that Proust possessed a “double vision,” combining “the sympathy of a poet and the detachment of a scientist” (*Granite* 135; 129). She commented specifically on Proust’s biologism, writing: “the thing about Proust is his combination of the utmost sensibility with the utmost tenacity. He searches out these butterfly shades to the last grain. He is as tough as catguts and as evanescent as a butterfly’s bloom” (*Writer’s Diary* 72). Similarly, Edmund Wilson (1931) characterized Proust’s novel as “a gigantic dense mesh of complicated relations... connecting the phenomena of infinitely varied fields—biological, zoological, physical, aesthetic, social, political, financial” (127). More recently, researchers have provided comprehensive surveys of Proust’s scientific

⁴⁷ As a reminder, I use the following abbreviations to refer to each of the various volumes of Proust’s *In Search of Lost Time: The Way by Swann’s* (*WBS*); *In the Shadow of Young Girls in Flower* (*SYG*); *The Guermantes Way* (*GW*); *Sodom and Gomorrah* (*SG*); *The Prisoner* (*P*); *The Fugitive* (*F*); *Finding Time Again* (*FTA*).

metaphors, and increased attention has been paid to his interest in natural history and evolutionary theory.⁴⁸

Proust's biological interests were also specifically connected to his exploration of the processes of artistic creation and transmedia production. As Roger Duchêne reports in his biography, Proust longed to "paint people as if they were plants and animals" (96; my translation).⁴⁹ This is clear, for example, from the famous botanical passages at the start of *Sodom and Gomorrah*, in which the narrator, recalling Darwin and anticipating Kaufman, describes an orchid and wonders how it will be pollinated by a bee. Drawing a parallel between the interactions between the orchid and the bee and those between the Baron de Charlus and his lover, Jupien, the narrator comments that the latter moves with the "coquettishness that an orchid might have had for a bee" (SG 8). At the same time, he also draws an aesthetic significance from this encounter, noting that he has derived "from the conspicuous stratagem of the flowers a consequence bearing on a whole unconscious element in the work of literature" (SG 7). That consequence is not revealed until the end of *Finding Time Again*, but it forms the high point of the narrator's aesthetic "vocation," in which he understands (though, admittedly, with some hesitation) that the time he has wasted will serve as the inspiration for his book. That book, moreover, combines the artistic processes and aesthetic forms of both literature and painting:

So all my life up to that day could, and at the same time could not, have been summed up under the title: A vocation. It could not have been, in the sense that literature had not played any role in my life. It could have been, to the extent that this life, the memories of

⁴⁸ See, for example, Nicola Luckhurst, *Science and Structure in Proust's À la recherche du temps perdu* (2000) and Simon Porzak, "Inverts and Invertebrates: Darwin, Proust, and Nature's Queer Heterosexuality" (2013).

⁴⁹ Roger Duchêne, *L'Impossible Marcel Proust* (1994) "peindre les hommes comme s'ils étaient des plantes ou des animaux" (96)

its times of sadness, its times of joy, formed a reserve comparable to that of the albumen stored in the ovule of a plant and from which it draws the nourishment it needs to transform itself into a seed, before anybody is aware that the embryo of a plant is developing, despite the fact that it is the site of secret but very active chemical and respiratory phenomena. In the same way my life was linked to that which would bring about its maturation. And those who might subsequently draw nourishment from it for themselves would have no idea, any more than people do when they eat food grains, that the rich substances which they contain were made for its nourishment, had first nourished the seed and enabled it to ripen.

In this area, comparisons which are false if one takes them as a starting point can be true if one ends up with them. The man of letters envies the painter, he would like to make sketches, to take notes, but if he does it is a waste of time. When he writes, though, there is not one gesture of his characters, not one mannerism, one tone of voice, which has not been supplied to his inspiration by his memory... And then the writer realizes that while his dream of being a painter was not realizable in a conscious and deliberate manner, it has nevertheless been realized and that the writer, too, has created a sketch book without being aware of it. (*FTA* 209)

Tellingly, the transition from seed to writer-painter here recalls the trajectory of Charlie in *Adaptation*. The Proustian work of art, like Charlie's screenplay, is born out of apparent laziness, distraction, and procrastination. At the same time, the narrator's description also recalls the aesthetics of John Ruskin, whom I mentioned in the introduction and whom Proust translated into French. Just as for Ruskin, the beautiful "flower [was] the end of the seed," so too for Proust do the secret chemical processes in the albumen (what today we would call the endosperm)

nourish an aesthetic product: a book. The writer's life builds from a seed as he receives impressions that help him grow, and if he never quite learns to write like a painter, then he does at least develop a collection of sketches along the way.

As noted previously, these kinds of transmedia, biocultural crossovers encouraged Brian Boyd to develop a theory of Proustian adaptation based on a model of "creative fertility" ("Making," 603). However, even the passage quoted here should give us pause on that front, for the indolent aestheticism described by the narrator seems actively to contradict with the utilitarianism implied by a model of biological fertility and evolution, as discussed previously. There is no sense of artistic production being motivated by a need for success, survival, or even reproduction here—far from it. In fact, Proust's text seems actively to challenge the heteronormativity implicit in discourses of fertility. The revelation "bearing on a whole unconscious element in the work of literature" (*SG* 7), which the narrator traces to the bee and the orchid, comes as he is watching a homosexual encounter between two men, an encounter that he explicitly describes as "sterile." Indeed, if something "fertile" does come from that encounter, then the narrator notes that "the word fertilization must be taken in its moral sense, since in the physical sense the union of male with male is sterile" (*SG* 30). The point is not to agree or disagree with the narrator's characterization of male homosexuality here or artistic production here (what would it mean for "fertilization" to be "moral"?); rather, the point is to question the value system that lies behind the binary between sterility and fertility itself.

Problems with that binary abound. Even the aesthetic flowers that the novel supposedly turns into are themselves not symbols of life and fertility but rather symbols of death and destruction. As the narrator's description of the chemical processes in the albumen suggests, his entire life is sacrificed for the work of art he produces. The same is true, moreover, of the lives of

the people he encounters, most notably the women he professes to love: his grandmother, Albertine, and more.⁵⁰

And certainly it was not only from my grandmother or from Albertine, but from many others as well, that I had been able to incorporate a remark, a look, although I might no longer remember them at all as individuals; a book is a great cemetery where the names have been effaced from most of the tombs and are no longer legible. Yet there are times when one remembers a name perfectly well, but without knowing whether anything of the person who bore it survives within these pages. That girl with the very deep-set eyes and the drawling voice, is she here? And if she really does repose here, then do we any longer know in what part, or how to find her underneath the flowers? (*FTA* 212)

The flowers of art, in other words, grow on the graves of the people (primarily the women) whom the narrator has encountered, transformed, and forgotten; not even their names survive. This suggests, moreover, that just as we should be cautious in deploying concepts of fertility and fecundity in discussions of biocultural evolution, so too must we be careful with the notions of artistic “survival” that theorists have used to describe the processes of artistic adaptation and reception.⁵¹ If the lives of Albertine, the narrator’s grandmother, and others are adapted into art—if they “survive” in Proust’s novel—then it is only through a process of erasure.

⁵⁰ As a long history of scholarship on gender and sexuality in Proust attests, it is not necessarily possible or desirable to treat gender in binary terms in Proust’s text. Most famously, Monique Wittig argued in “The Trojan Horse” that “most of the women in the book were in reality men” (1984, 49). I am not arguing for an essentialist approach to Albertine’s gender, but I do largely agree with Elisabeth Ladenson’s (1999) argument that all the attention that has been paid to “resolving” the gender of Albertine and figuring out whether she is “really” a man or a woman has often led to a neglect of the specific representation of Albertine as a bisexual woman. As Ladenson puts it: “both homophobic and gay-positive attempts to read Proust’s women as men paradoxically have in common the effect of reading out of the *Recherche* what is perhaps its queerest aspect: the narrator’s preoccupation with lesbianism” (17).

⁵¹ See Kamilla Elliott in *Theorizing Adaptation* (2020) and Linda Hutcheon in *A Theory of Adaptation* (2012)

Furthermore, in the system of male-dominated artistic circulation that the narrator imagines for his work, that process of erasure is redoubled as readers (specifically men) continue to rewrite Albertine in the image of their own obsessive desires: “It was sad for me to think that my love, which I had prized so highly, would in my book be so detached from an actual person that the readers of all sorts would apply it in all its detail to what they had felt for other women” (*FTA* 211). On the one hand, this recalls the idea of adaptation as a constant process of rewriting and critical reception: the character of Albertine is continuously reimagined as a series of other women in the minds of male readers (incidentally, the narrator explicitly describes this as a process of “posthumous infidelity,” going so far as to blame Albertine for her *promiscuity in death*, 211). On the other hand, though, it also demonstrates that whereas adaptation theorists have argued that such “repetitions and variations of adaptation have been central to the *survival* and *thriving* of arts, media, and narratives,” here survival comes only at the expense of Albertine, whose death and erasure are relived again and again in the ongoing cycle of production, adaptation, circulation, and reception (Elliott 273).

In this chapter, I will argue that this process of erasing Albertine is characteristic not just of the narrator’s descriptions of her adaptation in death but also of his descriptions of the multimedia reproductions of her “life.” Among both Proust and his critics, I will argue, that life has often been viewed as a kind of material, biological, and ontological real against which to oppose the psychologism, idealism, or solipsism of the narrator. Thus, Albertine, the *être de fuite*, becomes emblematic of the narrator’s inability to pin down “that unknowable thing—when we actually try to picture it for ourselves—the *real life* of another human being” (*P* 52; my emphasis).⁵² The multiplicity, the transformative mutability of Albertine (the “many-headed

⁵² The question of how to translate the famous epithet, *être de fuite* (*Albertine disparue*, 18), is an important

goddess” who, in the famous sequence of her kiss with the narrator, becomes “ten Albertines,” a series of images and bodies reproduced in a way that recall “the latest developments in photography”) is thought to be *outside* of representation (*GW* 363). Hence why she eludes the narrator in his all-consuming quest to “possess her” completely (“my desire for her was desire for her whole *life*,” *SYG* 357). Suzanne Guerlac (2020), for example, argues that Albertine’s mutability is a product of her “intrinsic blurriness” (61). In an engaging study of the relationship between Proust and the biological, evolutionary philosopher Henri Bergson, Guerlac argues that the “*flou*” or flux of Albertine’s existence (what she refers to as the contingency of her being within a Bergsonian “time of *life*”), makes it impossible for the narrator to arrest her in space, time, or media; as such, Albertine appears within the novel in a series of blurred photographs, photographs that certainly function as an innovative and modernist transmedia art form, bridging stillness and movement, vision and narration, but that nevertheless are primarily characterized in terms of their inability to *capture the reality* of Albertine (6; 61). Through these photographic and transmedia adaptations of Albertine, in other words, the novel suggests that Albertine’s life is fundamentally inassimilable. Supposedly, therefore, her *reality* cannot help but be erased. This purportedly unseizable reality is what Gilles Deleuze and Félix Guattari (in another kind of extended Bergsonism) refer to as Albertine’s “speed,” arguing that she moves “too fast through the narrator’s auditory and visual field” (*Thousand Plateaus*, 271). According to Deleuze and Guattari, the questions facing the narrator in response to Albertine are as follows: “How can he

one. Peter Collier gives “runaway,” (*F* 402) which hardly begins to capture it. C. K. Scott Moncrieff has “fugitive creature” (IV, 18), which while ugly has the benefit of stressing the almost biological way in which fugacity (with all its attendant cognates of change, mutability, and evanescence) is wedded to the narrator’s depiction of Albertine.”

become master of speed, how can he stand it nervously (as a headache) and perceptually (as a flash)? How can he build a prison for Albertine?" (271).

Returning to the notion of anxiety that structured my analysis of Charlie in the previous chapter, therefore, I will argue that this discourse regarding Albertine's transformative mutability (her "speed," the "*flow*" of her "life") is as much a result of the narrator's anxieties about her (and about what is meant by "life") as it is a depiction of her so-called natural, physical, or biological reality. Thus, while the narrator supposedly goes to extensive lengths to control the "flighty" Albertine, it is he who creates the characterization of "flightiness" in the first place. As he puts it: "To those creatures, creatures of flight, their nature [and] *our anxiety* attaches wings" (P 81). In other words, it is precisely not that Albertine *is* inherently possessed of too much "flight" or "life" (even if the narrator insists that it is in her "nature"); rather, it is the narrator's anxiety that attaches wings to her. It comforts him, in a word, to represent her as ultimately unknowable and unattainable. In this way, Proust's novel recalls Kaufman's *Adaptation* precisely in its representation of the so-called *life* of a woman, for whereas the *être de fuite* in Susan Orlean's *The Orchid Thief* was surely the unattainable ghost orchid, in *Adaptation* it became Orlean herself, the woman whom Charlie purportedly desired but whom he sent in his screenplay on a drug-fueled treasure hunt through the swamps of Florida. As detailed in the previous chapter, in Charlie's evolutionary utopia, Orlean became a paradigmatic example of what Richard Dawkins called a "coy female," which I argued was nothing other than a male, masturbatory fantasy (*Selfish Gene* 199). Here, therefore, I argue that, just as Charlie inflated the movements of Orlean, so too does Proust's narrator produce a fantasy of the ever-moving Albertine to compensate, paradoxically, for his inability to control her. Fittingly, the final result, of course, is the same for

Albertine as it was for Orlean: she must be written out of the story, written out of life. She must become “no longer legible” (*FTA* 212).

To connect this with the notions of transmediality and Proust’s hybrid aesthetics, mentioned above, I demonstrate how the narrator’s response to Albertine also resembles his response to the new media forms of photography and film that developed at the end of the nineteenth century. I explore this connection by building on the work of Walter Benjamin, who serves as my jumping off point before I turn to the analysis of Albertine proper. Benjamin explored Proust’s work both alongside and in contrast to Henri Bergson’s “philosophy of *life*,” and his argument about Bergson shares some parallels with my critique of the representation of the life of Albertine (*Illuminations* 156). Benjamin argues that while Bergson pretends to offer a theory of the open evolution of life in nature (what Bergson calls “creative evolution”), in fact that theory is simply a product of the historical conditions of post-industrial modernity (Bergson, *Creative Evolution* 207; hereafter *CE*). As such, Benjamin’s critique of Bergson’s evolutionary model of “life” (namely that it is dependent on specific material and economic conditions) shares something with my critique of the biocultural theorists of adaptation and evolution, mentioned in the introduction and the previous chapter. Benjamin ties his argument to a precise media history, claiming that what he refers to as the “shocks” of a media-saturated world became so unbearable that philosophers such as Bergson and authors such as Proust took refuge in the imagined safe havens of biology, nature, and life. What this demonstrates, for Benjamin, though, is that the search for the Bergsonian “time of life” is a historical symptom produced by the trauma of modernity rather than the result of a so-called biological reality (Guerlac 61). In relation to Albertine, therefore, the narrator responds to this trauma by representing her as a series of images that make her seem *as if she were* unstable, flighty, possessed of life. Paradoxically, this creates

the narrator's fantasy of the unique mystery surrounding Albertine. His seemingly endless, transmedia reproductions of her are intended to create an illegibility that allows him to avoid dealing with her reality, revealing a strategic representation that results, ultimately, in her effacement. That process, however, tells us much more about the narrator's anxieties concerning nature (life), women (Albertine), and media (photography and film) than it does about the so-called reality of all three.

On Some Motifs in Benjamin and Bergson

Walter Benjamin was suspicious of life, specifically the life of Henri Bergson. In his essay, "On Some Motifs in Baudelaire," Benjamin argued that Bergson's "philosophy of life," which preserved "links with empirical research" and was "oriented towards biology," had its crowning achievement in the French philosopher's "early monumental work, *Matter and Memory*" (Benjamin 156-7; *Matter and Memory* hereafter given as *MM*). In this text, Bergson attempted to understand the relationship between consciousness, memory, and lived time as what he called "*durée*" (159). While that description makes it sound like something of a phenomenology, Bergson's philosophy always strove, as Keith Ansell-Pearson (2018) argues, to think "beyond the human condition" (1). In other words, the biologism that Benjamin critiqued was part of Bergson's constant effort to understand "life" in the broadest possible sense, incorporating the human within a generalized study of nature and evolution. As Bergson puts it in *The Two Sources of Morality and Religion* (hereafter *TSMR*), "there are biological laws; and the human societies, in so far as they are partly willed by nature, pertain to biology on this particular point" (404). In a manner that seems to anticipate the evolutionary psychologists and literary Darwinists, mentioned in the introduction, Bergson elaborates on the intersection between these

biological and cultural laws as follows: “if the evolution of the organized world takes place according to certain laws, I mean by virtue of certain forces, it is impossible that the psychological evolution of individual and social man should entirely renounce these habits of life” (404). As Pearson notes, this is Bergson, echoing Nietzsche, arguing that philosophy must place “man back in nature as a whole” (*Bergson* 11).

Bergson’s theory of biological life and memory is highly complex. In an evolutionary context, Patrick McNamara has argued that it can be conceived as a kind of “mental Darwinism” (1999, 34). He calls Bergson and William James the “two philosophers who were the first to see the importance of Darwinian selectionism for the study of memory” (33). In what McNamara refers to as Bergson’s “selectionist account of remembering,” the memories of the past, stored as habits across the timespans of both individual organisms and the deep time of evolution, provide a circumscribed arena for action in the present (33). At the same time, the interaction between past and present serves as the basis on which an organism constantly reinvents itself, at every moment. According to Bergson, “we are creating ourselves continuously” (213). He refers to this process as an organism’s “appropriate reaction, the correspondence to the environment—*adaptation*, in a word—which is the general aim of life” (*MM* 84). Bergson elaborates on this idea in *Creative Evolution*, in which he sees existence and adaptation in the present as part of the constant efforts of living organisms to “reply” to the past rather than “repeat” it:

Life must create a form for itself, suited to the circumstances which are made for it. It will have to make the best of these circumstances, neutralize their inconveniences and utilize their advantages—in short, respond to outer actions by building up a machine which has no resemblance to them. Such adapting is not *repeating*, but *replying*—an entirely different thing. If there is still adaptation, it will be in the sense in which one may

say of the solution of a problem of geometry, for example, that it is adapted to the conditions. I grant indeed that adaptation so understood explains why different evolutionary processes result in similar forms: the same problem, of course, calls for the same solution. But it is necessary then to introduce, as for the solution of a problem of geometry, an intelligent activity, or at least a cause which behaves in the same way. (*CE* 240-1)

Incidentally, this description makes it clear that Bergson was not satisfied, as Richard Dawkins and the neo-Darwinians were, with accounts of evolution that reduce it to mathematical models or geometrical calculations. Indeed, Bergson is quite explicit on this point: “the evolutionary phenomena which properly constitute *life*, we cannot in any way subject to a mathematical treatment” (*CE* 222). At all levels of biology (far above, beyond, and below the human), Bergson insists on an “intelligent activity” that is “undergoing change every moment” and that cannot be mechanistically or statistically predicted (241). According to Keith Ansell-Pearson, it is precisely this which distinguishes Bergson’s account from neo-Darwinism’s emphasis on the abstract combinations of genes and organisms:

The novelty of evolution—the events of evolution, if one likes—is to be explained in terms of the interplay between ‘organic memory’ and new conditions or situations (this is in contrast to the research paradigm of neo-Darwinism, which conceives of evolution taking place in terms of the mechanical sum of discrete genetic codes and the algorithmic processes of natural selection). For Bergson, the variation of evolution is being produced continuously at every moment, although, of course, it is only within specific conditions and under specific circumstances that it gives rise to a new species. No amount of

knowledge of elementary causes will suffice to foretell the evolution of a new life form.

(“Introduction” 29)

This constant drive for novelty is what Bergson refers to as the “original impetus of life,” or *élan vital* (241). As Robert C. Grogin notes, notions of freedom and contingency were central to this impetus, which depended on “a cosmos which was free and changing and which creatively transcended everything” (1988, 82). For Bergson, life’s creativity was to be found in the inherent indeterminism of both biology and art. As Paul Atkinson (2021) puts it, Bergson viewed life as “inherently creative” and argued that it “opens up into the world through the actions of the living from the primitive movement of single-celled organisms to the spontaneous and free actions of an artist” (119). This is clear from Bergson’s “biocultural” descriptions of the creation of artworks, notably in his analysis of a painter’s production of a portrait:

The finished portrait is explained by the features of the model, by the nature of the artist, by the colors spread out on the palette; but, even with the knowledge of what explains it, no one, not even the artist, could have foreseen exactly what the portrait would be, for to predict it would have been to produce it before it was produced—an absurd hypothesis which is its own refutation. Even so with regard to the moments of our life, of which we are the artisans. Each of them is a kind of creation. (*CE* 213)

This leads Bergson to develop a philosophy of life that is both radically contingent and incredibly broad. As he summarizes at the end of *Creative Evolution*:

Life is no more than a tendency to act on inert matter. The direction of this action is not predetermined; hence the unforeseeable variety of forms which life, in evolving, sows along its path. But this action always represents, to some extent, the character of contingency; it implies at least a rudiment of choice. Now a choice involves the

anticipatory idea of several possible actions. Possibilities of action must therefore be marked out for the living being before action itself. Visual perception is nothing else: the visible outlines of bodies are the design of our eventual action on them. (*CE* 248)

This broad—“biocultural”—understanding of life poses certain problems. For example, while Bergson often claims that his philosophy attempts “to lessen greatly, if not to overcome, the theoretical difficulties that have always beset dualism,” his definition of “life” here relies on a dualism that is clearly stated (*MM* 97). As Claire Blencowe (2008) writes, “Bergson posits a primary ontological dualism of a vital impetus, momentum or vigor, the *élan vital*, and an inert matter, to which it is immanent, that it strives to mold. Evolution is not driven by a mechanism such as natural selection. The force of evolution is the creative urge” (141).

Blencowe has also pointed out the differences between Bergson’s conception of life and that of Walter Benjamin. She argues that, while Benjamin was a “contributor to Bergsonian theory,” there was nevertheless “a crucial point of tension” between them, as Benjamin felt that Bergson’s idea of life was “isolated from history” (143). Benjamin argued that, despite the fact that Bergson was in many ways dealing with how individuals and species inherit and respond to history (in the sense of the deep past of evolution), history as a concept was largely absent from his theory of life and memory. “It is not,” Benjamin argues, “Bergson’s intention to attach any specific historical label to memory” (157) Bergson, of course, made no secret of this eschewal of history. Indeed, he located the source of social renewal in his claim that there is “no inescapable historical law” (*TSMR* 404). But Benjamin argues that this desire to escape from history is really just a symptom of Bergson’s anxiety. By rejecting “any historical determination of memory,” Benjamin claims, Bergson “manages above all to stay clear of that experience from which his own philosophy evolved or, rather, in reaction to which it arose. It was the inhospitable, blinding

age of big-scale industrialism” (157). Benjamin’s claim, in other words, is that Bergson’s theory masks its own historical formation—perhaps, even more pointedly, it masks its own *evolution*. For Benjamin, as Keith Ansell-Pearson puts it, Bergson’s theory “fails to both understand its own historical conditions of possibility and reflect on its historical determinations” (*Bergson* 88). Though Benjamin does not say so explicitly, he seems to view Bergson’s philosophy as little more than a reactionary Romanticism. He implies that, in its emphasis on life and biology, Bergson’s theory strove to escape from the new age of industrialism by biologizing human life. In a manner startlingly similar to the evolutionary theorists and adaptive practitioners mentioned in the previous chapter, Bergson’s philosophy *naturalized* itself, pretending to be ahistorical and eternal when in fact it was highly circumscribed.

One thing that makes Bergson’s estrangement from history apparent to Benjamin is the fact that, as he puts it, “only a poet [could] be the adequate subject” of the experience of life he describes (157). That poet—the one who, in Benjamin’s mind, put “Bergson’s theory of experience to the test”—was Marcel Proust (157). On the one hand, it seems rather fitting that Benjamin should draw this connection between Proust and Bergson. It is encouraged by the fact that a character named “M. Bergson” appears in Proust’s novel and that Bergson wrote to Proust (who was his wife’s first cousin) to congratulate him when his novel was published.⁵³

⁵³ “Rarely,” wrote Bergson, “has introspection been pushed so far. It is a direct and continuous vision of internal reality,” suggesting that the philosopher felt a profound affinity for the novelist’s conception of memory (qtd. in Atkinson, 2020, 149). Despite Bergson’s praise, though, the moment in which the character named M. Bergson appears in Proust’s novel, like many of the historical crossovers in the text, is notoriously ambiguous. It occurs when the narrator recalls the account of Bergson’s theory that was provided to him by an unnamed Norwegian philosopher (possibly the Swedish writer Algot Ruhe, who wrote a biography of Bergson) who was told about it by a “M. Boutroux,” (most likely the psychologist and mysticist Émile Boutroux), who himself supposedly heard it from “M. Bergson”. Now, assuming that all of these fictional characters in Proust’s text do indeed correspond to the real philosophers and historians with whom they share their names, this framing makes clear that whatever Bergson actually did or did not say

Furthermore, as Paul Atkinson notes, Bergson's own descriptions of the workings of memory seem to resemble Proust's: "Bergson proposed his own example indicative of Proustian memory in his much earlier publication, *Time and Free Will*, describing how the scent of a rose is a means through which the 'confused recollections of childhood come back to my memory'" (149). The moment seems to anticipate the account of the hawthorn trees in *The Way by Swann's*, whose "inexhaustible profusion" the narrator tries desperately to imbibe (WBS 219). On the other hand, many thinkers have questioned the connection between Proust and Bergson. Georges Poulet, for example, famously argued that the novelist adopted "a position diametrically opposed" to Bergson insofar as he displayed a persistent urge to spatialize time (1963, 10; my translation).⁵⁴ Similarly, Alan Thiher has argued that "Proust knew Bergson's work, but Bergson's concepts about time were not Proust's" (2001, 188).

As far as Benjamin is concerned, however, his own argument would seem to make sense of this ambivalence regarding the relationship between Bergson and Proust. This is because, while Benjamin argues that Proust's work tested Bergson's "philosophy of life," he also claims

has come down to the narrator in a highly mediated form. It is the narrator's recollection of a Norwegian philosopher's recollection of what Boutroux recalled Bergson telling him about recollection. The whole enterprise, in fact, seems decidedly tongue-in-cheek, a joke on Proust's part that quite literally distances his narrator from Bergson. The passage in its entirety is as follows: "Of course, M. Bergson will have said to M. Boutroux, if the Norwegian philosopher is to be believed, hypnotics taken from time to time in moderate doses do not affect the solid memory of our everyday lives, so firmly fixed in us. But there are other kinds of memory, higher and more unstable ones. One of my colleagues is lecturing on ancient history. He has told me that, the night before, he had taken a pill to get to sleep, he had difficulty, during his lecture, in recovering the Greek quotations that he needed. The doctor who had recommended the pills assured him they did not affect the memory. 'Perhaps that's because you don't have to give Greek quotations,' the historian had replied, not without a mocking vanity" (SG 379).

⁵⁴ Georges Poulet, *L'espace proustien* (1968): "Il est singulier que celui dont on a si souvent voulu faire un disciple de Bergson, ait pris, probablement sans le savoir, une position diamétralement contraire. Si la pensée de Bergson dénonce et rejette la métamorphose du temps en espace, Proust non seulement s'en accommode mais s'y installe, la pousse à l'extrême et en fait finalement un des principes de son art" (9-10).

that it provided an “immanent critique” of it (157). According to Benjamin, this is because Proust’s narrator shows just how unlikely it is for human beings in the modern age to stumble across their past memories, to happen upon hawthorn bushes or reminiscent roses. For Benjamin, this shows that

Proust’s work [was]... an attempt to produce experience synthetically, as Bergson imagines it, under today’s conditions, for there is less hope that it will come into being naturally... Bergson emphasized the antagonism between the *vita activa* and the specific *vita contemplativa* which arises from memory. But he leads us to believe that turning to the contemplative actualization of the *stream of life* is a matter of free choice. From the start Proust indicates his divergent view terminologically. To him, the *mémoire pure* of Bergson’s theory becomes *mémoire involontaire*. (157)

Thus, against the background of a disconnect between modern subjects and their pasts—the anomie of turn-of-the-century Paris—the narrator can only stumble upon memories accidentally, involuntarily, *passively*. Benjamin argues, therefore, that the narrator is not responding *actively* to his past in the way that Bergson imagines all living organisms do within the “stream of life.” This passivity of the subject is, moreover, according to Benjamin, a product of life under post-industrial capitalism. Modern man, Benjamin argued, had become “increasingly unable to assimilate the data of the world around him by way of experience” (157). The rise of the news cycle and the circulation of press media were some of the primary causes of this, insofar as they transformed reading and art into mere entertainment and stimulation:

Newspapers constitute one of many evidences of such an inability [of humans to assimilate data]. If it were the intention of the press to have the reader assimilate the information it supplies as part of his own experience, it would not achieve its purpose.

But its intention is just the opposite, and it is achieved: to isolate what happens from the realm in which it could affect the experience of the reader. The principles of journalistic information (freshness of the news, brevity, comprehensibility, and, above all, lack of connection between the individual news items) contributes as much to this as does the make-up of the pages and the paper's style. (157-8)

In Benjamin's mind, newspapers transform the entire tradition of "narration" or "storytelling" into something based solely on "information" and "sensation." This is sensation in the affective, ontological sense, but also as *sensationalism*. It results in a shriveling of both life and consciousness: "the replacement of the older narration by information, of information by sensation, reflects the increasing atrophy of experience" (159). Thus, Benjamin identifies a devolution of experience through the development of new media, what in modern terms we might interpret as the replacement of so-called "art" by so-called "content." The immediacy and reproducibility of journalism as a media sphere is what inaugurates this new reality; it is this that sends Proust's narrator into the inner shell of his consciousness, as he retreats from the media reality of the present into the security of the artistic past.

Seemingly on account of the extended length of time required for its consumption (in contrast to the immediacy of the news), "Proust's eight-volume work conveys," for Benjamin, "an idea of the efforts it took to restore the figure of the storyteller to the present generation" and overcome the pressures of the media-saturated present (159). Just like Bergson, Benjamin implies, Proust sought a work that was abstracted from that present, a work whose concept of experience was "outside history, as [was] that of the *mémoire involontaire*" (184). By extracting his work from history and allowing his narrator to "transcend" time, Proust endeavored to replace the fast-paced and vapid content of newscasting with the supposedly authentic art of

“storytelling.” For this reason, Benjamin argues, Proust’s aesthetics were diametrically opposed to those of Charles Baudelaire, “who placed the shock experience [of modernity] at the very center of his artistic work” (163). For Benjamin, Baudelaire’s poetry encapsulated the experience of modern life, an experience that both Bergson and Proust sought to flee:

If Baudelaire in “Spleen” and “Vie antérieure” holds in his hands the scattered fragments of genuine historical experience, Bergson in his conception of the *durée* has become far more estranged from history. “Bergson the metaphysician suppresses death.” The fact that death is eliminated from Bergson’s *durée* isolates it effectively from a historical (as well as a prehistorical) order. (185)

In Benjamin’s mind, in the same way that Bergson’s philosophy sought to escape into biological life, so too did Proust’s work seek to escape into art and memory. By trying to “put Bergson’s philosophy to the test,” Proust sought shelter from “the scattered fragments” of experience that were so keenly felt by Baudelaire. For Benjamin, however, this demonstrates that Proust’s novel was less an accurate depiction of biological life than a historical symptom of the inability to process the data of the modern world. For this reason, Benjamin argued, Proust’s work could be better understood through the psychoanalysis of Freud than through the biologism of Bergson.

Freud against Bergson

“In seeking a more substantial definition of what appears in Proust’s *mémoire de l’intelligence* as a by-product of Bergson’s theory,” Benjamin wrote, “it is well to go back to Freud” (160). Benjamin argued that the most relevant text for understanding Proust’s work was “*Beyond the Pleasure Principle*, which presents a correlation between memory (in the sense of

the *mémoire involontaire*) and consciousness” (160). The logic of this turn to Freud makes sense in the light of Benjamin’s reading of Proust and modernity, even though *Beyond the Pleasure Principle* is surely no less speculative or ahistorical in its biologism than Bergson’s *Matter and Memory*. Incidentally, Bergson himself thought that his “idea of integral conservation of the past” (what Benjamin describes as Bergson’s attempt to suppress death) “found its empirical verification in the vast collection of experiments instituted by the disciples of Freud” (qtd. in Pearson, *Bergson* 180n.1). Nevertheless, the contradiction between Bergson and Freud becomes apparent as soon as we consider that, whereas everything that Bergson says about evolution is related to creativity and contingency, everything that Freud says about it is related to conservatism and destruction. If Bergson offered an account of evolution as a process of “replying” to the past in new ways in the present, Freud offers one that, as is well-known, is based entirely on “repeating” that past. Freud writes:

Let us suppose... that all the organic instincts are conservative, are acquired historically and tend towards the restoration of an earlier state of things. It follows that the phenomena of organic development must be attributed to external disturbing and diverting influences. The elementary living entity would from its very beginning have had no wish to change; if conditions remained the same, it would do no more than constantly repeat the same course of life. In the last resort, what has left its mark on the development of organisms must be the history of the earth we live in and of its relation to the sun. Every modification which is thus imposed upon the course of an organism’s life is accepted by the conservative organic instincts and stored up for further repetition. Those instincts are therefore bound to give a *deceptive appearance of being forces*

tending towards change and progress, whilst in fact they are merely seeking to reach an *ancient goal* by paths alike old and new. (*Beyond* 45; my emphasis)

Freud's emphasis on the closed system of life ("what has left its mark on the development of organisms must be the history of the earth we live in and of its relation to the sun") is very far removed from Bergson's open system of "creative evolution" (213). In fact, Freud's evolutionary paradigm more closely resembles Darwin's entropic and eliminative mechanism of natural selection than Bergson's "original impetus of life" (241). Indeed, it is this that scholars have argued unites Darwin's theory with the second law of thermodynamics, the law of entropy: "both classical thermodynamics and Darwinism admitted only one possible historical outcome, the reaching of thermal equilibrium or of fittest design. In both cases, once this point was reached, historical processes ceased to count" (De Landa 13). The same emphasis on ultimate equilibrium and stasis also informs Freud's *Beyond the Pleasure Principle*, leading him to describe what he calls "the goal of life" (reminding us of Rousseau) in terms that directly contradict Bergson. Indeed, whereas, for Bergson, life was about creative replying, for Freud it is about conservative repetition: "It would be in contradiction to the conservative nature of the instincts, if the goal of life were a state of things which had never yet been attained. On the contrary, it must be an *old* state of things, an initial state from which the living entity has at one time or other departed and to which it is striving to return" (45). Equally unsurprisingly, therefore, Freud famously concluded that the primary organic "tendency" was not, as it was for Bergson, "to act on inert matter" but rather to become inert matter itself: to die.

For Benjamin, what is important about this Freudian evolutionism is that, whereas Bergson posited an evolutionary drive that came from within ("the original impetus of life" found in all living things), Freud understood evolution as being imposed from without (*CE* 241). As a

result, therefore, Freud argued that living organisms are *made to respond* to the outside world in order to live: “the phenomena of organic development must be attributed to *external* disturbing and diverting influences” (45). This means that organic development is conceptualized (as we have seen it was for Darwin), as a form of *survival*: it involves self-preservation, as organisms must learn to protect themselves from harmful stimuli. Benjamin quotes Freud on this point:

For a living organism, protection against stimuli is an almost more important function than the reception of stimuli; the protective shield is equipped with its own store of energy and must above all strive to preserve the special forms of conversion of energy operating in it against the effects of the excessive energies at work in the external world, effects which tend towards an equalization of potential and hence toward destruction.

(Benjamin 161; Freud, *Beyond* 30-1)

Incidentally, this threat posed by the exterior world to the integrity of the living organism is precisely what would lead Leo Bersani, in *The Freudian Body* (1986), to posit primary masochism as an evolutionary trait. Writing in terms of masochism and sadism (where masochism corresponds to an organism receiving harm from others and sadism corresponds to an organism enacting harm on others), Bersani speculated that “masochism serves life”:

It is perhaps only because sexuality is ontologically grounded in masochism that the human organism survives the gap between the period of shattering stimuli and the development of resistant or defensive ego structures... Masochism would be the psychological strategy which partially defeats a biologically dysfunctional process of maturation.

Masochism as the model of sexuality allows us to survive our infancy and early childhood... Masochism, far from being merely an individual aberration, is an *inherited disposition* resulting from an *evolutionary conquest*. (39; my emphasis)

According to Bersani, in other words, masochism, which he defines as a tendency to take pleasure in painful stimuli, is a way for a developing organism (a zygote, a fetus, a human child) to survive what would otherwise be a wholly unbearable experience of life: “a psychological strategy which partially defeats a biologically dysfunctional process” (39). It allows the organism to survive the early stages of existence, when it has no “mastery,” in Freud’s terms, over its external environment.

Both Freud and Bersani seem to suggest that this state of affairs is the product of natural, biological tendencies. For Benjamin, by contrast, it results from (or is at least accelerated by) modernity. In Benjamin’s opinion, the need for human organisms to protect themselves from overwhelming stimuli became all the more urgent in response to what he calls the “shock culture” of post-industrial capitalism, with its new, fast-paced media cycles (encapsulated, for Benjamin, by journalism). The need for “survival,” in other words, resulted from the “inhospitable, blinding age of big-scale industrialism” (157). Thus, Benjamin argues that the development of the supposedly inherent, biological dispositions that Freud traced to individual cells were actually precipitated by the new technological developments that took place towards the end of the nineteenth century. Famously, he labelled these developments part of the “age of mechanical reproduction,” arguing that they revolutionized not only the structure of society but also the nature of art itself (217). In what follows, I will first summarize how Benjamin’s theory of that age relates to his reading of life, biology, art, and media in Proust’s text, before arguing for a more nuanced understanding of how Proust deploys the technologies of mechanical reproduction in his novel.

A Media Theory of Modern Life

Benjamin argues that the development of “mechanical reproduction” led to fundamental changes in the production, distribution, and perception of art. He characterizes this in terms of what he calls the “decay of the aura” (222). To briefly summarize his well-known argument, this decay occurs when works of art that were previously “unique” proliferate through mechanical reproduction, causing them to become divorced from the original spaces and times in which they were conceived and produced. As Claire Blencowe notes, “by substituting a mass experience for a unique one and by facilitating the appearance of artworks in physical and social contexts to which they would not have had access previous to the development of technological reproducibility, reproductive technology effects a disarticulation of works of art from the context of tradition” (146). If, for Benjamin, “the uniqueness of a work of art is inseparable from its being embedded in the fabric of tradition,” then removing a work of art from that tradition through the use of new reproductive technologies changes the relationship between the perceiving subject and the object perceived (223). The formerly unique work of “art” becomes a reproducible “image” that is literally and metaphorically brought “closer” to a greater number of people (whom Benjamin refers to as the “masses”). Benjamin writes:

Every day the urge grows stronger to get hold of an object at very close range by way of its likeness, its reproduction. Unmistakably, reproduction as offered by picture magazines and newsreels differs from the image seen by the unarmed eye... To pry an object from its shell, to destroy its aura, is the mark of a perception whose ‘sense of the universal equality of things’ has increased to such a degree that it extracts it even from a unique object by means of reproduction. (223)

The art forms that Benjamin considers most characteristic of the destruction of aura were photography and film, both of which “transformed the entire nature of art” (226). “With the

advent of the first truly revolutionary means of reproduction, photography, simultaneously with the rise of socialism, art sensed the approaching crisis which has become evident a century later” (224). In his reading of Proust, Benjamin claims that the novelist’s “great familiarity with the problem of the aura requires no emphasis.” This is demonstrated, according to Benjamin in “On Some Motifs in Baudelaire,” by Proust’s representation of the arts of photography and film. When “complaining of the barrenness and lack of depth in the images of Venice that his *mémoire volontaire* presented to him,” Benjamin argues, the narrator “notes that the very word ‘Venice’ made that wealth of images seem to him as vapid as an exhibition of photographs” (187). Incidentally, Susan Sontag has also focused on this same description of the photos of Venice, arguing that, for Proust’s narrator, the art of photography is always used “as a synonym for a shallow, too excessively visual, merely voluntary relation to the past” (177). Notably, this suggests that, in Benjamin’s and Sontag’s view, the narrator understands art as being diluted by reproduction, clearly suggesting an alternative aesthetic paradigm to the ideas of “fertility,” “fecundity,” and “survival,” mentioned in the introduction. In those models, artworks were valued precisely for their ability to spread, duplicate, and distribute themselves (Richard Dawkins’ model of the “meme” is nothing if not a theory of reproduction and replication). In Proust’s work, by contrast, reproducibility destroys the value of art, disintegrating its “aura,” in Benjamin’s terms. Photographs, for Proust, are not “successful” artworks for the very reason that they *can* be reproduced, and reproduction itself, as Benjamin puts it, leads only to “barrenness,” rather than “fecundity” (187). To be clear, I am not “agreeing” with Proust’s representation of photography here. The point is not to offer a transvaluation of the “fertile” theory of media provided by adaptation scholars in order to value so-called “uniqueness” in art. Benjamin, for his part, clearly values photography, film, and mechanical reproducibility for their ability to challenge the cult of

the aura on which Proustian aesthetics and, more importantly for Benjamin, Fascism relied.⁵⁵ The point is only to show that concepts related to the reproduction, fertility, and survival of media and art arguably become much more historically relevant only after the development of technological reproducibility. For Proust, though, at least from Benjamin's perspective, those developments posed a threat to the integrity of art and nature themselves. This is evidenced by the narrator's well-known critique of the new media technology of film, which he views as a suppression of the contingency of *life*:

An image presented to us by *life* brings us in *reality*, in that moment, multiple and different sensations. The sight, for example, of the cover of a book already read has, woven into the letters of its title, the moonbeams of a distant summer night. The taste of our morning café au lait brings with it the vague hope of good weather which so often, long ago, while we were drinking it out of a creamy-white, rippled porcelain bowl which might almost have been made out of hardened milk, when the day was still intact and full, made us smile at the sheer uncertainty of the early light. An hour is not just an hour, it is a vessel full of perfumes, sounds, plans and atmospheres. What we call reality is a certain relationship between these sensations and the memories which surround us simultaneously—a relationship, *which is suppressed in a simple cinematographic vision*, which actually moves further away from truth the more it professes to be confined to it—a unique relationship which the writer has to rediscover in order to bring its two different terms together permanently in his sentence. One can list indefinitely in a description all

⁵⁵ Benjamin associates the cult of the *Führer* with the supposed authenticity created by the aura of so-called unique works of art: "The logical result of Fascism is the introduction of aesthetics into political life. The violation of the masses, whom Fascism, with its *Führer* cult, forces to their knees, has its counterpart in the violation of an apparatus which is pressed into the production of ritual values" (241).

the objects that figured in the place described, but the truth will begin only when the writer takes two different objects, establishes their relationship, the analogue in the world of art of the unique relation created in the world of science by the laws of causality, and encloses them within the necessary armature of a beautiful style. Indeed, *just as in life*, it begins at the moment when, bringing together a quality shared by two sensations, he draws out their common essence by uniting them with each other, in order to protect them from the contingencies of time, in a metaphor. Had not *nature herself*, from this point of view, set me on the way to art, wasn't she herself the beginning of art, she who made it possible for me, often after a long interval, to recognize the beauty of one thing only in another, noon at Combray only in the sound of its bells, mornings at Doncières, only in the hiccupping of our water-heater? The relationship may not be very interesting, the objects ordinary, the style bad, but if no relationship has been established, there is nothing.

But that was not all. If reality were a kind of residue of experience, more or less identical for everybody, because when we talk about bad weather, a war, a cabstand, a brightly lit restaurant, a garden in flower, everybody knows what we mean, *if reality were just that, then no doubt some sort of cinematographic film of things would be enough and 'style' and 'literature' which departed from their simple data would be an artificial irrelevance*. But was this really what reality was? (FTA 198-99; my emphases)

In his dismissal of cinema here, Proust resembles Bergson, who argued that we tend not to perceive the world and our memories as creative and evolutionary processes precisely because

we fall prey to a “cinematographic illusion” of time.⁵⁶ At the same time, Proust’s claims about art also mirror Benjamin’s conception of the aura. The narrator argues that the task of the writer is to abstract sensations “from the contingencies of time” and create a “unique relation” that protects them from history (*FTA* 198). There is, of course, no specific reason why this would not be possible with cinema, but in terms of Proust’s text, this suggests (as Benjamin argues) that the narrator seeks an escape into art as Bergson’s philosophy sought an escape into life. Proust’s novel attempts to deal with “the scattered fragments of a genuine historical reality” precisely by abstracting them out of their historical contexts and combining them “in a metaphor” (Benjamin 185; Proust, *FTA* 198). This is the work of novelistic (high) art and involuntary memory, both of which are seemingly juxtaposed with the (low) arts of photography and film, as well as with voluntary memory. As Benjamin puts it: “if the distinctive feature of the images that rise from the *mémoire involontaire* is seen in their aura, then photography is decisively implicated in the phenomenon of the ‘decline of the aura’” (187).

Giorgio Agamben (1993) agrees with Benjamin’s characterization of Proust’s understanding of life and media. Agamben builds on Benjamin’s reading to argue that Proust’s novel describes the “destruction of experience” in modern life (42). He too views this as a response to the inassimilable reality of a modern, media-saturated world: “modern man’s average day contains virtually nothing that can still be translated into experience. Neither reading the

⁵⁶ For a summary of Bergson’s conception of cinema, see Ronald Bogue, *Deleuze on Cinema* (2003). Bogue argues that Bergson “identifies the error common to all spatializations of time as a ‘cinematographic’ illusion. Suppose, says Bergson, that we want to reproduce the movement of a military regiment on a screen. The easiest procedure would be to take a series of snapshots [*instantanés*] and project those snapshots on the screen, in such a manner that they replace one another very quickly. This is what the cinema projector does.’ Perception, intellection, and language operate in the same fashion, and ‘whether it is a matter of thinking becoming, or expressing it, or even perceiving it, we scarcely do anything other than activate a sort of internal cinema projector’” (21-23).

newspaper, with its abundance of news that is irretrievably remote from his life, nor sitting for minutes on end at the wheel of his car in a traffic jam” (42). As Patrick ffrench (2018) notes, Agamben’s analysis, which follows a reading of Benjamin’s “The Storyteller,” “transforms Proust’s novel into a prescient diagnosis of the anomie of contemporary life” (22). Although, ffrench claims, “the enlisting of Proust for a critique of everyday life may be extreme, the consistent factor here is the absence or loss of the capacity for a centering and synthetic capacity in a subject” (22).

In contrast to Agamben, however, Suzanne Guerlac (2020) has offered a quite different reading of Proustian media theory and subjectivity. Guerlac positions her reading “against Walter Benjamin” and argues that Proust’s novel is very much related to “Bergson’s account of memory” (77). Guerlac points out—correctly, in my opinion—that Benjamin’s “elegiac” reading of Proust, in which the novelist “transforms existence into a preserve of memory,” necessarily causes Benjamin to emphasize the “traditional, idealist reading that places the vocation story at the novel’s core” (83). That “vocation story,” as mentioned, is the story of the narrator learning to write the novel that we ourselves read. As Guerlac points out, however, that story, which is largely confined to the bracketing volumes of *The Way by Swann’s* and *Finding Time Again*, misses out a fairly significant few thousand pages in the middle. Those pages follow the twists and turns of the narrator’s relationship with Albertine, and their emphasis is less on the transcendence of involuntary memory than on the experience of what Guerlac calls “living with contingency” in time (84). By ignoring much of this central section and emphasizing the framing device of involuntary memory, Benjamin’s reading of Proust implies that “art is necessary—and necessarily redemptive—because modern lived experience, which occurs in time, is hollow and inauthentic” (83). Incidentally, Guerlac even challenges Benjamin’s interpretation of the photos

of Venice in Proust's novel: "if the snapshots of Venice that Proust's narrator alludes to are lifeless and uninspiring images," she argues, "this is not because they are photographs. It is because they represent a certain *kind* of photograph, snapshots taken with the *intention* of provoking thoroughly conventional memories, coded by social expectations" (40). As commercial holiday photos, in other words, these mass-produced images are little more than "cultural currency" (so-called "content" rather than so-called "art"). They are precisely those kinds of reproducible "images" that Benjamin argues are characteristic of "picture magazines."

Guerlac's reassessment of Proustian media fits into a tradition of recent reevaluations of the relationship between Proust, Bergson, film, photography, and more. These reevaluations have challenged a traditional snobbery around the new media forms represented in Proust's novel. That snobbery is implicit in Philippe Sollers' (1999) claim, for example, that "nothing is more false than to situate Proust in his own age, that of the unfolding of photography and even cinema" (qtd. in Danus 118). Countering this view, however, scholars such as Martine Beugnet and Marion Schmid have analyzed the "specifically cinematic quality of Proust's writing" (5), and Patrick ffrench, for his part, despite recognizing that cinema is "conspicuous by its absence" from Proust's novel, has noted that the novel as a whole contains references to several "devices and motifs from the pre-history of cinema—photography, the magic lantern, the kinoscope, the stereoscope, the modalities of projection and of the screen" (1).

As ffrench notes, this intermingling of the arts can mean that it is difficult to make any widespread or definitive claims about what Proust "thinks" about media, adaptation, and art. As mentioned, Proust's writing is typified precisely by its mixture of media, as it rapidly traverses the realms of photography, film, painting, theatre, and more. For example, as we will see, the photographs of cathedrals that the narrator describes in Elstir's studio vary markedly from the

holiday photos of Venice, just as the reserved caricatures of Giotto differ considerably from Elstir's dynamic seascapes. Benjamin, however, paints Proustian photography with a particularly monolithic brush when he compares Proust's transmedia aesthetics with those of Baudelaire:

If we designate as aura the associations which, at home in the *mémoire involontaire*, tend to cluster around the object of a perception, then its analogue in the case of a utilitarian object is the experience which has left traces of the practiced hand. The techniques based on the use of the camera and of subsequent analogous mechanical devices extend the range of the *mémoire volontaire*; by means of these devices they make it possible for an event at any time to be permanently recorded in terms of sound and sight. Thus, they represent important achievements of a society in which its practice is in decline. To Baudelaire there was something profoundly unnerving and terrifying about the daguerreotype; he speaks of the fascination it exerted as 'startling and cruel.' Thus, he must have sensed, though he certainly did not see through them, the connections of which we have spoken. His willingness always to grant the modern its place and, especially in art, to assign it its specific function also determined his attitude towards photography. Whenever he felt it as a threat, he tried to put it down to its 'mistaken developments'; yet he admitted that these were promoted by 'the stupidity of the broad masses.' 'These masses demanded an ideal that would conform to their aspirations and the nature of their temperament... Their prayers were granted by a vengeful god, and Daguerre became his prophet.' Nevertheless, Baudelaire tried to take a more conciliatory view. Photography should be free to stake out a claim for ephemeral things, those that have a right 'to a place in the archives of our memory,' as long as it stops short of the 'region of the intangible, imaginative': that of art in which only is allotted a place 'on which man has bestowed the

imprint of his soul.' This is scarcely a Solomonian judgment. The perpetual readiness of volitional, discursive memory, encouraged by the technique of mechanical reproduction, reduces the scope for the play of the imagination. (186)⁵⁷

Thus, for Benjamin, both Proust (in his emphasis on the importance of aura) and Baudelaire (in his separation of the proper spheres of painting and photography) revealed their anxieties about the new forms of mechanically reproduced art (Baudelaire's essay on the daguerreotype, incidentally, to which Benjamin refers, is an attempt to navigate the ideas of the separation or combination of poetry and painting that were explored by Lessing in his *Laocoön*, as mentioned in the introduction). As those forms were connected simultaneously to voluntary memory, they formed part of the general "atrophy of experience" in the modern age, reducing "the scope for the play of the imagination" (159). As mentioned, in Benjamin's mind, the only difference between Baudelaire and Proust was that, whereas Proust's narrator retreated from modernity into the ahistorical realm of the aura, Baudelaire's *flâneur* battled with modernity on the streets of Paris. As a result, Benjamin argues, Baudelaire's poetry "indicated the price for which the sensation of the modern age may be had: the disintegration of the aura in the experience of shock" (194).

It is not altogether clear, however, that Proust's and Baudelaire's views about mechanically reproduced art can be aligned in the way that Benjamin suggests. On the one hand, Proust's narrator seems to echo some of Baudelaire's ideas about photography and painting in his discussion of both art forms when he visits Elstir's studio:

⁵⁷ Benjamin is quoting from Baudelaire's essay, "The Salon of 1859," specifically the section on "The Modern Public and Photography." For reference, see Charles Baudelaire, "The Salon of 1859: The Modern Public and Photography" in *Modern Art and Modernism: A Critical Anthology*, edited by Francis Francina and Charles Harrison (1986), pp. 19-22

Although it is said, and rightly so, that it is only in the sciences, and not in art, that there can be progress or discovery, and that no artist who launches into his own endeavor can ever be helped or hindered by the endeavors of any others, it must be recognized that, in so far as art establishes certain laws, and once an industry has vulgarized them, the art of earlier times loses in retrospect something of its originality. Since the earliest period of Elstir, we have seen supposedly ‘admirable’ photographs of landscapes and cities. If one tries to define what it is that art lovers [*amateurs*] mean by that adjective, it can generally be seen to apply to some unfamiliar image of a familiar thing, an image that is different from the ones we are in the habit of noticing, unusual yet true, and which for that reason seems doubly striking, since it surprises us and shakes out of our habits, while at the same time it turns us in on ourselves by recalling an impression. For instance, one of these ‘magnificent’ photographs will illustrate a law of perspective by showing a cathedral which we are accustomed to seeing in the center of the city, but taken from a point of view chosen so as to make it appear thirty times higher than the houses and jutting out beside the river, whereas it is nowhere near it. The fact was that Elstir’s intent, not to show things as he knew them to be, but in accordance with the optical illusions that our first sight of things is made of, had led him to isolate some of these laws of perspective, which were more striking in his day, art having been the first to uncover them. (SYG 417-18)

To a certain extent, the narrator echoes Baudelaire’s condescension towards photography here. His use of scare quotes to describe “*supposedly* ‘admirable’,” “‘magnificent’ photographs” suggests that any praise for photography is only to be found among Baudelaire’s “broad masses,” the crowds of ill-educated “amateurs.” Moreover, as Sara Danius (2002) argues, while there is a

sense in this passage that photography can produce artistic effects (changing the perspective of a cathedral and thereby awakening us from conventional ways of seeing), the passage as a whole nevertheless remains focused on the effect that these developments in photography had on the art of painting. Proust's narrator seems to suggest that "competition with the mechanically produced image... compelled Elstir to reinvent his painterly aesthetics... because photography—*une industrie*, Proust writes... banalized traditional art" (109). Implicitly in Proust, in other words, there is a familiar argument about the development of new media technologies, an argument that André Bazin (1960) would later summarize by claiming that photography "freed the plastic arts from their obsession with likeness" (7). In turn, this freedom allowed Elstir to abandon realism (the narrator describes "the effort made by Elstir, when seeing reality, to rid himself of all the ideas the mind contains," SYG 418). Moreover, that Proust should use the term "*industrie*" to describe photography actively recalls Baudelaire, who complained of the "imbeciles" who were swept up by the "industrial madness" of photography ("The Modern Public and Photography" 20-21).

However, even if the narrator implicitly subordinates photography to painting in his discussion in Elstir's studio, suggesting that the role of the former was to reinvigorate the latter, this is not necessarily because of any inherent "barrenness" or "lack of depth" in photographs, as Benjamin argues (187). Although the narrator states that a photograph "turns us in on ourselves by recalling an impression," it only does so because it "surprises us and shakes us out of our habits" (SYG 418). The camera, in other words, is not just one of those "mechanical devices [that] extend the range of the *mémoire volontaire*"; rather, it cuts through habitual life in the present, forcing us to adapt, creatively, to the past (SYG 418). It recalls, therefore, the processes of Bergson's "creative evolution," suggesting that photographs invite us to "reply" to the past rather

than just “repeat” it (*CE* 241). More importantly, this suggests that the representation of photography in Proust’s novel is far from monolithic. As I will argue in the following section, this is particularly noticeable in the photographic depictions of Albertine, who more than anyone in the novel “shakes” the narrator out of his conventional “habits.” In charting several of these photographic representations, I will argue that they demonstrate that Proustian photography is more complex than Benjamin allows. Nevertheless, I will also argue that their apparent ambiguity and mutability form part of a strategy on the narrator’s part to represent Albertine *as if she were* inherently subject to change within Bergson’s model of “creative evolution” (*CE* 207). Her “adaptations,” in other words, in both biological and media-theoretical terms, are produced as much by the narrator’s anxieties about “life” as by the reality of life itself.

The Laugh of Albertine

One of the most extended and nuanced investigations into the narrator’s photographic representations of Albertine is provided by Suzanne Guerlac, who contrasts them with the description of a single photograph that the narrator discovers, late in the narrative, of his deceased grandmother. Guerlac argues that, whereas the photograph of the narrator’s grandmother allows him to mourn “the time of her dying,” the various photographic representations of Albertine are used to record the contingency of her actions as she exists within “the time of life” (29; 61) While there is not enough space to discuss all the complex layerings and different images of Albertine that Guerlac explores, what links them generally is that they try (and fail) to “capture” the so-called dynamism and mystery of this young girl. This is evident, for example, in a passage towards the end of *In the Shadow of Young Girls in Flower*, when a photograph of Albertine by

the sea becomes interlayered with the narrator's memory of her, blurring both his memory and the photograph itself:

Memory immediately begins to take snapshots that are quite independent of one another—abolishing all links and sequence among the scenes they show—in their collection of them that it displays, the latest does not necessarily obliterate the earlier ones. Beside the unremarkable and touching Albertine with whom I had chatted, I could see the mysterious Albertine against the backdrop of the sea. Both were now memories... neither seemed truer than the other. (*SYG* 454-5)

In her discussion of this moment, Guerlac argues: “Proust seems to appreciate that photographic acts can never fully exhaust a referent, that there is no saturation, or completeness, when it comes to photography” (95). Guerlac also notes that this is characteristic of the representations of the other young girls at Balbec, who are also introduced in photographic terms. Indeed, the very first time these girls are described in the narrative, their representation occurs not via an immediate act of perception but via a delay, in a photograph that the narrator looks at “some time later” (*SYG* 403). When the narrator describes these young girls in the present, no-one even recognizes them: “It was the day after I had seen the group of girls profiled in beautiful procession against the sea. I asked several of the hotel-guests about them, people who often spent their summers at Balbec, could tell me nothing” (*SYG* 403). As Guerlac points out, the description of the photograph of these girls explains why they cannot be identified: it is because they were, at the time, an “amorphous mass... a white blur of a constellation” (63). The narrator explains this by way of a strange combination of evolutionary and media theory, stating that it was not in fact his “vision of the group which lacked clarity... but the group itself” (*SYG* 403):

In those days, the girls were too young to have gone beyond the elementary degree of formation of self, when personality has not yet stamped its seal on each face. Like primitive organisms in which the individual hardly exists, or rather in which it is constituted more by the polypary than by each of its component polyps, they lived in a close conglomerate, huddled together. One of them would suddenly push another one over, and a fit of giggles, which seemed to be the only manifestation in them of personal life, convulsed them all at once, masking and unifying the undefined, grimacing faces in the sparkle and translucency of a single, quivering cluster. In an old photograph which they subsequently gave me, and which I have kept, their pack of children numbers no fewer of them than were to figure later in their feminine company; it suggests that even then the blur of color they made on the beach was remarkable enough to make eyes turn towards them, but in order to recognize any of them individually, one must resort to deduction, try to imagine the whole range of their possible transformations during later childhood, up to the point at which their remodeled forms started to coincide with another individual set of features... Different though those earlier days were from the day when I had seen them on the esplanade—different, yet so close to it—the girls still enjoyed laughing with gusto, as I had noticed the day before; but this was not the intermittent and almost automatic sort indulged in by children, the spasmodic release which had once made the whole group of heads duck down as one, as a block of minnows in the Vivonne used to dive and disintegrate, before reforming moments later; their individual faces had now become capable of self-mastery, their eyes remaining fixed throughout on the aim they pursued; and on the day before, it had been only my indecision and the vacillation of my initial perception which, like their former hilarity and the old photo, had fused into an

indistinct whole the now individualized and separated sister stars of the pale madrepora.

(SYG 403-4)

In a certain sense, the narrator's combination of artistic and evolutionary theory here seems to recall the notion of "creative evolution" suggested by Bergson (*CE* 207). These young girls seem to be "undergoing change every moment," epitomizing life's struggle, in Bergson's terms, to "create a form for itself" (*CE* 241). Building on Bergson, Guerlac describes the moment as follows:

It would be reasonable to assume that the snapshot was out of focus because the little girls cannot sit still. But Proust's narrator proposes another hypothesis: children are *intrinsically* formless because they are internally in flux. They are still coming into their own; they have not yet settled into the contours of their identity. (61; emphasis in original)

If this is the case, then it seems important to stress that this is never anything more than a "hypothesis." While "the blurriness of the fictive photograph proposes a trembling of lived time," it is not because the group of giggling girls are actually "primitive organisms" who have not "gone beyond the elementary degree of formation of self," even if the narrator describes them in those terms (Guerlac 61; *SYG* 403). It is the "vacillation" of his "initial perception," as well as his "indecision" that produces the blurred image and its subsequent reception. Bergson's idea that life must constantly struggle to "create a form for itself" could lead us to assume that there actually is something in the so-called nature of these young girls that makes them inherently formless, when in fact that formlessness is a product of the narrator's physical and epistemological distance; he either does not bother or does not want to look at them (he seems to jerk the camera lens of his vision and memory away from them at the crucial moment). Indeed, he explicitly accuses his

memory of “quickly mislaying their existence” (SYG 404), as if his unconscious mind acted rapidly to ensure that he did not really see them.

The narrator’s representational and epistemological anxiety in the face of these young girls is reflected in his comparison of them to a “pale madrepora” (SYG 404). This stony-coral was the subject of considerable interest among nineteenth-century scientists on account of its taxonomic and reproductive ambiguity. Madreporae exhibit both sexual and asexual reproduction, are variously hermaphroditic and gonochoric, and were studied (at the time) at the intersection of zoology, botany, and geology (at stake in this disciplinary overlap, of course, was the question of whether or not madreporae were *alive*, whether they were composed of organic or inorganic material).⁵⁸ Incidentally, it is notable that the narrator, the observer of girl-corals, describes himself variously as a “botanist” and “geologist” by turns: “failing the geologist’s contemplation, I at least had that of the botanist” (SG 2). The main problems for nineteenth-century scientists in relation to madreporae were: how can we distinguish one individual from another? and how do they reproduce? As a commentary by the noted naturalist Philip Henry Gosse on an 1859 treatise by Anne Thynne, entitled “On the Increase of Madreporae,” stated: “we know so little of the reproduction of our native *Caryophylliacea*, that any mite of information on the subject would be welcomed by the zoologist” (449).⁵⁹ In the narrator’s mind, therefore, on account of their unknowability and their strange capacity to separate and fuse together, madreporae become the perfect figure for the “indistinct whole” of the young girls.

⁵⁸ As Simon Porzak (2013) notes, “when Darwin set off on the *Beagle*, he was preoccupied by a very specific invertebrate problem... the classification of so-called zoophytes, organisms (in particular coral polyps) that had not yet been conclusively classified as either plant or animal” (15).

⁵⁹ Incidentally, Gosse’s use of the taxonomic term *Caryophylliacea* also reminds us that if the narrator is in the shadow of young girls in flower at Balbec, then those flowers belong as much to the sea as they do to the land: *Caryophylliacea* encompasses both the sea anemones, *Caryophyllia*, and the pink carnations, *Caryophyllaceae* (known to us today, fittingly, as Coral Reef *Dianthus*es).

The narrator's epistemological panic in response to these flowering fish-girls continues as he proceeds to extract Albertine—a single individual—from out of this primitive polypary. This begins, appropriately for the narrator's representational strategies, at a moment when she appears to be travelling at high speed (relative to him), as she whizzes by on a bicycle. At this moment, Albertine is still unnamed; she is referred to simply as “the brunette with full cheeks and the bicycle” (SYG 375). Her separation is initiated, however, by way of a “laughing glance,” recalling the narrator's claim that laughter was the only thing that “separated the sister stars of the pale madrepora” (“a fit of giggles, which seemed to be the only manifestation in them of *personal life*,” SYG 404). This process of individuation has an almost vertigo-inducing influence on the narrator's sense of self, as evidenced by the full description of this moment, which I will now quote at length, highlighting the repeated mentions of the supposed “life” of Albertine and the panic that it induces in the narrator:

I glimpsed her *oblique, laughing glance*, looking out from the *inhumane* world [*monde inhumain*] which circumscribed the *life* of their little tribe, an inaccessible *terra incognita*, obviously *incapable of harboring or offering a home to any notion of who or what I was*. With her toque pulled down low on her brow, entirely engrossed in what her companions were saying, *did she see me*, at the moment when the black ray from her eyes encountered me? If so, *what must I have seemed like to her? What sort of world was the one from which she was looking at me?* I could not tell, any more than one can tell from the few details which a telescope enables us to descry on a *neighboring planet* whether it is *inhabited by human beings*, whether or not *they can see us*, or whether their view of us has inspired any reflections of them.

If we believed that the eyes of such a girl were nothing but shiny little discs of mica, we would not be eager *to enter her life and link it to our own*. But we are well aware that whatever it is that shines in those reflective discs is not reducible to their material composition... and what we are most aware of is that she herself lies behind them, with her desires, her likes and dislikes, the power of her inscrutable and inexhaustible will. I knew I could never possess the young cyclist, unless I could also possess what lay behind her eyes. *My desire for her was for her whole life*: a desire that was full of pain, because I sensed it was unattainable, but also full of heady excitement, because *what had been my life up to that moment had suddenly ceased to be all of life*, had turned into a small corner of a great space opening up for me, which I longed to explore and which was composed of *the lives of these young girls*, because what was laid out now before my eyes was *that extension and potential multiplication of self which we know as happiness*. The fact that they and I shared nothing, no habit, no idea, was surely bound to make it more difficult for me to make their acquaintance and meet with their approval. But perhaps it was my very awareness of these differences between us, my knowledge that, *in the nature of the girls as in their every action, there was not one iota of an element that was known to me or that I could have access to*, which had *replaced my satiety of life by a thirst*, akin to that of a drought-stricken land, for a *life which my soul*, having gone forever without a single drop of it, *would now absorb in greedy draughts, letting it soak me to the roots*. (SYG 374-75)

Thus, in everything, the first encounter with Albertine is represented as an encounter with alien life: an unknown, “inhuman” (or “inhumane”) species. In evolutionary terms, the meeting specifically takes shape as a kind of competition for scarce resources in an arid landscape. Within

that landscape, the self experiences the other as a threat to its very being. It must, therefore, seek to consume it: “a life for which my soul, having gone forever without a single drop of it, would now absorb in greedy draughts, letting it soak me to the roots.” The Proustian paradigm of desire, in other words, is eat or be eaten; love is survival of the fittest.

As has long been known, though, this representation of the “*terra incognita*” of Albertine tells us far more about Proust’s narrator than it does about Albertine herself. (How could it tell us anything about her?) In this moment, the narrator clearly repeats what H  l  ne Cixous outlines as the Freudian “phantasm of woman as a ‘dark continent’ to penetrate and pacify”: “a great space opening up for me, which I longed to explore” (Cixous, 2010, 1944n.4; *SYG* 375). As Cixous notes, however, that phantasm is precisely derived from the male need to represent women as unknowable and unseen. The claim that Albertine is from Venus is a panicked effort to deny that she is from Earth.⁶⁰ Indeed, note how easily the narrator glides over the paradox of stating that, while he has never even met Albertine or the young girls (and he may never meet them, remarking that it will be difficult “to make their acquaintance” in the future), he nonetheless claims to know instantly how to define their “nature.” Comfortingly for the narrator, that nature *is* unknowability: “in the nature of the girls as in their every action, there was not one iota of an element that was known to me or that I could have access to” (*SYG* 375).

To borrow Cixous’s terms, the narrator clearly reveals here that he is just one more in the long line of “trembling Perseuses,” terrified of looking in a woman’s eyes (1952). Like Perseus, he cannot bring himself to “look at the Medusa straight on to see her” (1951). This point is biological as much as mythological, given the zoological connotations of the Medusa myth

⁶⁰ The insuperable division of the sexes haunts the entirety of Proust’s texts, as evidenced by the epigraph to *Sodome et Gomorrhe*, taken from Alfred de Vigny: “Woman will have Gomorrah and man will have Sodom” (*SG* 5)

(connotations that would not have been lost on Proust): in English, Medusa gives her name to certain species of cnidaria, the Medusozoa; in French, the term *méduse* is still the common noun for jellyfish. Significantly, jellyfish or medusas are stages in the lifecycles of polyps; they are what the polyp becomes once it separates into a free-floating, “individual” creature. As Donna Haraway notes, the connotations of the Medusa have come to define the taxonomical and scientific history of jellyfish and other cnidaria (the same phylum to which the stony corals or madrepores belong): “from the blood dripping from Medusa’s severed head came the rocky corals of the western seas, remembered today in the taxonomic names of the Gorgonians [in French, *gorgones*], the coral-like sea fans and sea whips, composed in symbioses of tentacular animal cnidarians and photosynthetic algal-like beings called zooanthellae” (2016, 54). The intellectual tradition of scientific investigation into corals and jellyfish, in other words, takes as one of its founding documents the ur-text of male terror before the “shiny little discs of mica” that comprise a woman’s eyes (the geological term “mica,” incidentally, also recalls the depiction of the young girls as a stony coral, as well as the threat of petrification posed by the Medusa, *SYG* 375). Haraway and Cixous try to reclaim that tradition in the name of their respective politics of the “cthulucene” and “*écriture féminine*,” with Cixous stating that if anybody really looked at the Medusa, they would find that “she’s not deadly. She’s beautiful and she’s laughing” (Haraway, *Staying 2*; Cixous 1949). Incapable of looking, however, Proust’s narrator can only wield the epistemological and visual ambiguity of Medusan, cnidarian taxonomy precisely to suggest that Albertine and these young girls *can never* and *should never* be looked upon or known.

The biological connotations of the Medusa myth are spread throughout Proust’s novel. He mentions his revulsion at the sight of jellyfish twice. First, he remarks that the sight of dead jellyfish on the beach at Balbec repulses him almost as much as living oysters: “I was more

disgusted by the thought of the living flesh of oysters than I was by the sticky remains of jellyfish [*méduses*] littering the beach at Balbec” (*SYG* 275). Later on, he recalls this moment and comments: “the jellyfish [*méduse*] repulsed me at Balbec” (*SG* 30). As I will argue in the final section of this chapter, this latter moment actually coincides with the narrator learning to look at and appreciate jellyfish, describing them as the “mauve orchids of the sea” (*SG* 30). Tellingly, though, this occurs when the narrator is comparing a cnidarian to the Baron de Charlus, a locus in the text for the revelation and display of male desire. As I will argue, while the jellyfish-Charlus becomes a mechanism for learning to look at male homosexuality, the female homosexuality epitomized by the “feminine company” of the primitive polypary remains stubbornly ugly and invisible (*SYG* 403). This, I will argue, is in keeping with the representational blind spots around women and lesbianism in the novel as a whole.

For now, though, it is enough to note that whenever the narrator mentions cnidarians and medusas in relation to women, he exhibits a simultaneous urge to look away. This is true, for example, of the woman described by the narrator as resembling the mythological Medusa, in an account that falls between the two mentions of the biological jellyfish. This woman is the narrator’s dying grandmother, and the description occurs when he enters her sickroom and notices that she is being treated with leeches: “fastened to her neck, her temples, her ears, the tiny black reptiles were writhing in her blood-stained hair, Medusa-like” (*GW* 332). Though the narrator is grateful that these blood-sucking leeches make his grandmother feel better (allowing him to see “her beautiful eyes, wide open, luminous and calm”), they are nevertheless a source of “disgust” for him (*GW* 332). Furthermore, it is telling that the process of the grandmother’s dying will be a long transformation into stone, a sculpting of organic nature into inorganic art: “the sculptor’s work was nearing its end, and if my grandmother’s face had grown smaller, it had also hardened.

The veins that crossed it were not like veins of marble, but of some rougher stone” (this recalls the petrifying power of the Medusa, the tombstones of the narrator’s novel-as-cemetery, and the idea that the grandmother is “regressing” into the “primitive,” stone-based world of inorganic matter, *GW* 322). Horrified at the sight of her, the narrator worries that she is becoming a “creature other than my grandmother, *a sort of beast*” (*GW* 334; my emphasis). The aversion that the narrator experiences before the sight of his grandmother, therefore, maps out an entire network of metaphorical, mythological, biological, and aesthetic associations that link her with the “inhuman” Albertine. The monstrous, snake-infested head of his grandmother recalls the disgusting medusas of Balbec, the polypary of the young girls, and the laughing face of Albertine. The narrator is unwilling to look at any of them. Indeed, the marine ecology into which they fall is a source of perpetual horror for him, as demonstrated by the revulsion he feels at being served a meal at the Grand Hotel at Balbec, a meal composed of a “giant fish, a sea-monster... from the primitive ages when wildlife first began to teem in the Ocean, in the days of the Cimmerians, where its body with its countless vertebrae, its pink and blue nerves, though put together by Nature, had been built to an architectural design, like a polychromatic cathedral of the deep” (*SYG* 273). If this snaking, tentacular monster, recalls both the Medusa of his dying grandmother and the shifting polypary of the young girls, it is because the urge to represent women as “primitive” sea creatures (here a many headed “monster,” a Scylla or Lernaean Hydra from another *terra incognita* beyond the limits of Oceanus) dominates the narrator’s compulsive urge *not to look at them*, lest he come to see the laughter in their eyes.

Inside the “Inner Dark Room”

The urge not to look at Albertine (like the urge not to look at other young girls in the novel) is repeated in a media-theoretical discourse that mirrors the biological and evolutionary accounts of the Medusa. It informs the way in which Albertine is introduced into the novel in photographic terms, which occurs when the narrator meets her in person in Elstir's studio. Seemingly overwhelmed by this most auspicious of meetings (the first time he ever speaks to Albertine), the narrator announces that he must delay the process of coming to understand and represent her until later:

At the moment when Elstir suggested I go with him and be introduced to Albertine, who was sitting a little way away, I finished a coffee éclair and inquired with interest of an old gentleman, whom I had just met and to whom I saw fit to offer the rose he had admired in my buttonhole, about certain agricultural shows in Normandy. This is not to say that the introduction which followed gave me no pleasure, or that it did not have a character of some gravity in my eyes. The pleasure, of course, I did not experience till a little later, back at the hotel when, having been alone for a while, I was myself again. Pleasures are like photographs: in the presence of the person we love, we take only negatives, which we develop later, at home, when we have at our disposal once more our inner dark room [*chambre noire*], the door of which it is strictly forbidden to open while others are present. (SYG 450; my emphasis)

Thus, much like the young girls in the photograph at Balbec whose existence is quickly “mis-laid,” Albertine is passed over in the present until the narrator can be alone with himself (SYG 404). Suzanne Guerlac comments briefly on this image of the narrator's “inner dark room,” for which the French term corresponds with the Latin, *camera obscura*. Guerlac compares it to the space of “deep solitary self” identified in *Contre Saint Beuve* as the site of poetry: a “unique

world, closed off, without any opening [*communication*] to the outside” (*Contre Saint Beuve* 225; Guerlac’s translation 91). Nevertheless, Guerlac de-emphasizes the “romantic trope of interiority as a sealed-off subjective realm of imagination” to argue that the photographic encounter with Albertine lays emphasis on the narrator’s “contact with the outside world” (93). Thus:

The mind becomes not just a space of imagination but also a site of the development of impressions received from the outside world. Photography, which involves not only iconicity but also indexicality (contact with photons that have touched something real), marks a shift away from the hallucinatory inner vision of romanticism toward a more modern engagement with material impressions. (93)

While I would agree that, to a certain extent, there is a brief glimmer of attention paid to the “reality” of Albertine when the narrator encounters her in Elstir’s studio, it is notable that it is immediately passed over until he can be alone in his hotel room (he chooses instead to describe a seemingly inane conversation about “agricultural shows in Normandy,” *SYG* 450). Once he is ensconced in his hotel room, his all-encompassing self is able to swell and subsume Albertine, much as he declared it would when he first spotted her on the bike. There is, in other words, an immediate and active derealization of Albertine as the narrator strives to reposition himself at the center of his story (“having been alone for a while, I was myself again,” *SYG* 450). Albertine is quite literally displaced for the implicitly masturbatory and all-controlling presence of the narrator, recalling Kaufman’s fantasies of Orlean, discussed in the previous chapter, fantasies that we will also find repeated in Nabokov, particularly in Humbert Humbert’s representation of Lolita, in the chapter that follows. As far as Proust’s narrator is concerned, even when he seems to be looking at Albertine straight on, he rapidly tries to displace her image.

This analysis adds, incidentally, an important twist to Patrick ffrench's reading of the opening of Proust's novel, which, as he perceptively notes, also takes place "in a dark room" (8). This beginning, ffrench claims, combines the material technologies of cinema and photography with a mythological fable regarding the evolution of life and the origin of consciousness. The narrator writes:

When I woke in the middle of the night, since I did not know where I was, I did not even understand in the first moment who I was; all I had, in its original simplicity, was the sense of existence as it may quiver in the depths of an animal; I was more bereft than a caveman; but then the memory—not yet of the place where I was, but of several of those where I had lived and where I might have been—would come to me like help from on high to pull me out of the void from which I could not have got out on my own; I passed over centuries of civilization in one second, and the image confusedly glimpsed of oil lamps, then of wing-collar shirts, gradually recomposed my self's original features. (*WBS* 9)

In my opinion, ffrench is right to insist that these descriptions suggest both a fairytale story of the evolution of life and an understanding of consciousness as something which emerges in a *camera obscura*, a "dark room," dependent on a "sense of enclosure" (8). When placed alongside the description of the encounter with Albertine, however, that "sense of enclosure" only goes to show the extent to which the self must strive to banish the outside world—the other—to secure its own development. As a result, if the narrator dreams up his novel, as ffrench suggests, as a film or photograph developed from inside an "inner dark room," then that novel must itself be considered a long and concerted effort to either subsume Albertine within that room or exclude her from it (*SYG* 450). While this is an obvious point, it suggests that the model for the

relationship between the narrator and Albertine is not Swann and Odette but the primal couple of creation. Albertine's forebear is Eve, the first woman to be mentioned in the course of Proust's narrative, appearing during his confused creation story: "Sometimes, as Eve was born from one of Adam's ribs, a woman was born during my sleep from the cramped position of my thigh. Formed of the pleasure I was on the point of enjoying, she, I imagined, was the one offering it to me. My body, which felt in hers my own warmth, tried to return to itself inside her, I woke up" (*WBS* 8). This strange, encircling melting pot of self and other (in quite an explicit way, the narrator feels the warmth of his own life *inside* his dream girl) becomes the novel's paradigmatic fantasy of female formation and organic development. The narrator's dream will be to fashion Albertine from out of his own ribs; her reality will be the nightmare from which he tries to awake.

This process, moreover, recalls the botanical descriptions of artistic production, discussed at the beginning of this chapter, in which, like a plant, the writer nourishes himself from others to bring about his "maturation" (*FTA* 209). As the creationist and photographic descriptions of the "inner dark room" suggest, however, this process of ripening involves the sacrifice of Albertine in the name of the narrator's self-formation (*SYG* 450). At the same time, it leads to the narrator's transformations and reproductions of her as a photographic image throughout his novel. Indeed, from the moment the narrator first glimpses Albertine, he begins to adapt her into a series of images that reflect his own consciousness, rather than anything that resembles her reality. Thus, if his photographic consciousness does indeed involve "iconicity" and "indexicality," as Guerlac argues, then what it records are images very far removed from the real: a "series of imagined Albertines who occupied my head one after the other, for hours on end, the real Albertine, the one glimpsed down at the esplanade" (Guerlac 93; *SYG* 437). That "real Albertine," in fact, becomes "little more than an outline: everything else that had been added to her was of my own making"

(SYG 437). Later on, in Paris, the narrator will contract the multiple images of Albertine into a supposedly “three-dimensional character,” but one which yet again is always coordinated around the narrator’s sense of self, and which seemingly tells us nothing apart from the fact that Albertine is unknowable:

I saw her, in different years of my life, occupying different positions in relation to myself, which made me conscious of the beauty of the intervening spaces, the long periods when I had not been seeing her; against this diaphanous background the rosy person before my eyes took shape, a strongly modelled figure with mysterious shadows. Its three-dimensional character was due to the superposition, not only of the successive images that Albertine has been for me, but also of admirable traits of intelligence and feeling, and grave faults of character, all unsuspected by me, which Albertine, in a kind of germination, a multiplication of herself, a somber-hued flowering of flesh, had added to a nature almost characterless, but now difficult to know in depth. (*P* 59)

Thus, the reproductions of Albertine, her germination and growth, layer on top of her supposedly “characterless” individuality. Her hidden depths, in other words, are really just superficial reproductions, images through which she changes without ever quite getting to live. This process in which the narrator *reproduces* and *adapts* the images of Albertine culminates in the moment when he kisses her on the cheek, an experience which is yet again described in photographic terms:

Apart from the most recent applications of the art of photography... I can think of nothing that can so effectively as a kiss evoke from what we believe to be a thing with one definite aspect, the hundred other things which it may equally well be since each is related to a view of it no less legitimate. In short, just as at Balbec Albertine had often

appeared to me different, so now, as if, wildly accelerating the speed of the changes of aspect and changes of coloring which a person presents to us in the course of our various encounters, I had sought to contain them all in the space of a few seconds so as to reproduce experimentally the phenomenon which diversifies the individuality of a fellow creature, and to draw out one from another, like a nest of boxes, all the possibilities that it contains, in this brief passage of my lips towards her cheek it was ten Albertines that I saw; this single girl being like a goddess with several heads, that which I had last seen, if I tried to approach it, that head, I could still see it, a faint perfume reached me from it. But alas—for in this matter of kissing our nostrils and eyes are as ill placed as our lips are shaped—suddenly my eyes ceased to see; next, my nose, crushed by the collision, no longer perceived any fragrance, and, without thereby gaining any clearer idea of the taste of the rose of my desire, I learned, from these unpleasant signs, that at last I was in the act of kissing Albertine's cheek. (*GW* 363)

In this bathetic jumble of bodies, note that the narrator specifically usurps the evolutionary processes involved in the description of the “madrepore” at Balbec (*SYG* 404). There is a precise transfer of agency as the kiss becomes a photographic effort to “reproduce experimentally the phenomenon which diversifies the individuality of a fellow creature” (*GW* 363). The moment recalls Benjamin's argument that Proust's narrator tries to produce Bergson's idea of life “synthetically,” in the form of an experiment. It further suggests, though, that the proliferation of the “ten Albertines,” the reproduction of the life of an individual, is precisely a result of how the narrator sets up his experiment, rather than a product of Albertine's so-called nature or life. The moment should mark the apotheosis of Albertine's extraction from the polypary of young girls. In the evolutionary terms originally employed by the narrator, therefore,

it should also be the moment when Albertine achieves “self-mastery,” no longer forming part of a “primitive organism” (*SYG* 404). Instead, though, his photographic consciousness represents her as if she were a “goddess with several heads” (*GW* 363). He controls her representation to ensure that, even if she is no longer a “monstrous” medusa or a tentacular Hydra, she nevertheless is so multitudinous, so possessed of heads, energy, and life, that she literally cannot be visualized: “suddenly my eyes ceased to see” (*GW* 363).

The consequences of these representational responses to Albertine become even more evident once she is sequestered not merely within the “inner dark room” of the narrator’s consciousness but in the closeted world of his apartment in Paris (*SYG* 450). Suzanne Guerlac makes sense of the narrator’s seemingly melodramatic description of Albertine as a “prisoner” at this point (given that she is living in a large apartment in an affluent area of Paris) with reference to the work of Alain Corbin, who described what was known in nineteenth-century Paris as “the prison treatment,” a mechanism for regulating the sexuality of young girls, specifically prostitutes (1990, 94). The prison treatment was a “carceral system... within which a woman moved throughout her prostitutional career” (94). Guerlac argues that while Albertine is not explicitly described as a prostitute, she is coded as such insofar as the narrator pays for her lodging and monitors her closely. Just like the narrator’s stance towards Albertine, the goal of Paris’ prison treatment (in the words of its founder), was “to enclose in order to observe, to observe in order to know, to know in order to supervise and control” (qtd. in Guerlac 105).

Of particular interest in Guerlac’s analysis is the connection she draws between prostitutes and children in nineteenth-century Parisian policing. Again, citing Corbin, she notes that “a prostitute of any age was [considered] developmentally ‘still something of a child, an immature creature, malleable and mobile,’ and therefore in need of surveillance” (107). As these

women were thought to be “unformed,” their sexuality was at risk of becoming unfixed. For this reason, they had to be monitored precisely so that they would not end up becoming bisexual or homosexual. Guerlac interprets this with reference to Adrienne Rich’s (1993) critique of the normalizing tendencies of “compulsory heterosexuality” and compares the depiction of Albertine in Paris with that of the young girls at Balbec:

It was because prostitutes represent ‘the childhood of the human race,’ because they remained in the ‘primitive state of nondevelopment,’ that the prison system was considered necessary, as a form of guardianship. And, of course, the prostitute also ‘represents a terrible threat to sexual order’ because she runs the risk of becoming a lesbian.

We recall that in *In the Shadow of Young Girls in Flower* the narrator describes the group of little girls huddled together in the old snapshot as a ‘primitive organism in which individuality hardly exists.’ If the girls’ identity cannot be distinguished, it is because they were inherently unformed, unstable creatures. This, we recall, was what motivated the *flou* of this fuzzy snapshot, which carried over to the blurry, trembling impression of the adolescent girls made on Marcel/the narrator when he first saw them on the beach. It seems that the *flou* itself is implicitly written into the code of prostitution here. If the photograph of the little girls was out of focus, it is not because it was a failed photograph... but because it was a photograph of the little girls who were—like all prostitutes—inherently unformed, unstable creatures. It is because the girls were ‘too young to have gone beyond the elementary degree of formation of self, when personality has not yet stamped its seal on each face,’ as Proust’s narrator puts it. It was because they were little girls who represented the childhood of the human race, which is to say women

in need of control, of being subjected to compulsory heterosexuality and the rigors of the prison system. (107-8)

Of course, Guerlac is writing within the terms used by the narrator here. She most likely means that it is *only because* of the historical discourse surrounding prostitution and childhood that the young women are produced in Proust's novel *as if they are* "unformed, unstable creatures." Obviously, lesbianism is not *in its reality* any more "unstable" or "primitive" than heterosexuality; it is only represented as such by the narrator and anxious nineteenth-century sexologists. Nevertheless, throughout her analysis, Guerlac comes close to insisting that there is something about Albertine that makes her unstable *in the real*, thereby suggesting that this primitiveness is something inherent to her so-called nature. Indeed, even in the passage quoted above, the emphasis seems to be less on the fact that the girls "appear" blurry than on the idea that they are "inherently unformed" (108). In relation to Albertine, Guerlac emphasizes her "essential formlessness," arguing that this is what characterizes her representation across the many photographic reproductions of Proust's novel:

Proust reveals in *The Fugitive* that Albertine never existed as a unique, fixed individual and, at the same time, that this nonexistence has emerged only as a function of 'little fragments of the real' (*P* 18), discontinuous bits of memory image that Marcel/the Narrator has *taken* from lived experience and constructed into this woman who, he now sees, has no unique being, who is only a mobile creature. In *The Fugitive*, then, Proust brings us back to the *être de fuite* that emerged from a blurry photograph of little girls—the *flou* of a *photographie tremblée*—in *In the Shadow of Young Girls in Flower*. Albertine ends in the *flou* of a densely constructed assemblage that is without any

discernible unique being. And in this respect, Proust suggests, Albertine is fundamentally no different from anyone else, or at least from any other person who is loved by another.

If, in the end, Marcel will stop loving Albertine, it is not because of this formlessness. His love, his jealousy, and her essential formlessness went hand in hand. (118)

Thus, while there is a recognition here that the narrator's jealousy is entangled with the representation of Albertine, there is nevertheless a sense in which her existence (as a series of "little fragments of the real,") marks her out as a contingent, formless being defined by the Bergsonian processes of "creative evolution." Her supposedly "essential formlessness" places her at the mercy of what Guerlac refers to as the Bergsonian "time of life" (61). Moreover, Guerlac argues that this produces a different kind of art within Proust's novel. Albertine, according to Guerlac, "introduces the writer into a world of contingency," causing involuntary memory to operate "in a mode of invention, not reproduction" (mechanical reproduction in Benjamin's discourse, biological repetition in Freud's) (Guerlac 117; 116). In this way, she corresponds with the creativity of Bergsonian evolution because she "leaves the narrative utterly free to unfold any which way" (112). She has the capacity to evolve and change, supposedly like a primitive organism or a prostitute. Guerlac argues that "this perspective uncovers dynamics of improvisation in the novel that engage with time in its becoming" (73). This "time of becoming," Guerlac notes, tying it explicitly to Bergson, "is the time of *life*," and its image is Albertine (74). The narrator's efforts to track the movements of Albertine are what create the story we read: a story that the narrator "has improvised *in the process of living*" and "invented through the adventure of living, and loving, in time" (116).

In my opinion, despite Guerlac's compelling media-theoretical reading of Albertine in Proust's novel, her argument that Albertine is emblematic of the contingency created by the

Bergsonian “time of life” causes her to generalize, similarly to Bergson, about what “life” is and means (74). As I have noted, however, the narrator’s own definitions of life are highly circumscribed. The so-called lives of Albertine and the young girls are determined by the narrator’s epistemological and representational concern about the supposed alterity of young women. He responds to that alterity by trying to ensure that Albertine’s life is always represented from within the hermetic space of his “inner dark room” (SYG 450). As a result, paradoxically, her so-called reality is placed at as great an epistemological remove as possible. She is made to appear *as if she were* dynamic, multitudinous, and unstable precisely so that the narrator can avoid actually having to look at her. In this way, therefore, it could be argued that the narrator *adapts* the image of Albertine, much like, as I argued in the previous chapter, Charlie Kaufman *adapted* Amelia and Susan Orlean. The narrator gives Albertine multiple heads, forces her image to reproduce, and makes her appear as if she were part of a shifting polypary. This he must do, moreover, to secure his own survival, since Albertine’s “laughing glance” is “incapable of harboring or offering a home to any notion of who or what [he is]” (SYG 374). The integrity of the narrator’s very self, therefore, depends quite precisely on him securing the fiction that Albertine exists within a Bergsonian “time of life,” that she is always laughing, and that she, like the pale madrepora, is always subject to change.

The Jellyfish in the Closet

That Albertine is the primary site of “representational anxiety” within the novel has long been known (227). Eve Kosofsky Sedgwick used this phrase in *The Epistemology of the Closet* (1990) to argue that one of the narrator’s main strategies is to represent Albertine as if she were invisible. Sedgwick argues that this plays Albertine’s sexuality off against the sexuality of the

Baron de Charlus. If Albertine and her sexuality appear difficult to visualize, Charlus's supposedly closeted sexuality is constantly on display. His "glass closet is presented to the hungry window-shopping eye"; it is an "open secret," known by all (228). Sedgwick argues that "Charlus's closet is spectacularized *so that* the erotics around Albertine (which is to say, around the narrator) may continue to resist visualization; it is from the inchoate space that will include Albertine, and to guarantee its privileged exemption from sight, that the narrator stages the presentation of Charlus" (228). Elisabeth Ladenson continues this line of argument in *Proust's Lesbianism* (1999), in which she argues that Charlus

and his Sodomite cohorts' constant inadvertent self-disclosure presents a sharp contrast to the enduring opacity of Gomorrah. In the novel's various scenes of voyeurism, the narrator is consistently able to witness spectacles of male homosexual debauchery in all their depraved grandeur, while each of his efforts to see what women do together ends... with the blinds being drawn at the crucial moment. (63)

Throughout the entirety of Proust's work, lesbianism is presented as "at once exhibitionistic—female sexuality flaunting itself—and invisible, always eluding the male onlooker's efforts to apprehend, visually and conceptually, what women do together" (7). In the Bergsonian discourse that I have been tracking throughout this chapter, therefore, it seems that lesbians in Proust's novel seem to be having the "time of [their] life," but the narrator remains always unable to see them (Guerlac 61).

For this reason, it is telling that, among all the moments of recognition of the "disgusting" jellyfish, mentioned above, the one that results in a positive revelation is the one that involves not Albertine—not the polypary of young girls—but the Baron de Charlus. This occurs when the narrator spies Charlus wandering alone on the sand: "then the solitary languishes

alone... like Griselda, he lingers on the beach, like some strange Andromeda whom no Argonaut will come to deliver, like a sterile jellyfish that will perish on the strand” (SYG 30). The *loci classici* are important here. While the story of the Medusa—entirely absent from the English text—is just about legible in French through the common noun “*méduse*,” the Perseus myth has shifted its focus to Andromeda, who must be saved by beating back the sea monster, Cetus. Charlus risks being swallowed by the sea because no Perseus will come to rescue him. On the biological plane, moreover, there is a subtle shift from sea to land, as no marine creature claims Andromeda for their namesake; rather, she gives her name to Linnaeus’ *Andromeda polifolia*, the small and isolated flower that grows in chilly, remote bogs in the northern hemisphere, a fitting parallel to the supposedly lonely Charlus. In the text, this botanical leap continues in the explicit revelation that follows:

Jellyfish [*Méduse*]! Orchid! When I followed my own instinct, the jellyfish repelled me at Balbec; but had I known how to look at it, like Michelet, from the perspectives of natural history and aesthetics, I would have seen a delectable girandole of azure. Are they not, with the transparent velvet of their petals, like the mauve orchids of the sea? Like so many creatures of the animal and vegetable kingdoms, like the plant that would produce vanilla, but which, because, in it, the male organ is divided by a septum from the female organ, remains sterile unless humming-birds or certain small bees transport the pollen from one to the other, or unless man fertilizes them artificially, M. de Charlus (and here the word fertilization must be taken in its moral sense, since in the physical sense the union of male with male is sterile, but it matters that an individual should be able to meet with the one pleasure he is capable of enjoying, and that ‘here below every soul’ can give someone ‘its music, its flame or its fragrance’), M. de Charlus was one of those men who

may be called exceptional, because, however numerous they may be, the satisfaction, so simple with others, of their sexual needs depends on the coincidence of too many conditions, too difficult to encounter. (*SYG* 30)

Simon Porzak (2013) has offered a compelling reading of this moment. He argues that it operates in contrast to what Elisabeth Ladenson outlines as the “petrifying effect” of female homosexuality in the novel, “exemplified by the *méduse*, whose namesake’s many snakes, as Freud argues in ‘Medusa’s Head,’ only represent the explosive proliferation, the metonymic contagiousness, of castration” (9). Porzak argues that in this moment, by contrast, when the narrator and we as readers *finally learn to look* at a marine invertebrate, we come to realize its fundamental connection to a generalized nexus of queer nature in the novel. This connects the jellyfish to the more famous biological descriptions of Charlus as an orchid at the start of *Sodom and Gomorrah* with which this chapter began. In this earlier moment, Proust’s narrator had explained Charlus’s movements by referencing Darwin’s “laws of the vegetable kingdom” (*SG* 7). He had claimed that Darwin’s theory of evolution suggests that “inverts,” to use Proust’s term, trace their evolutionary lineage back “to those experimental epochs when neither dioecious flowers or unisexual animals existed, to that initial hermaphroditism of which a few rudimentary male organs in the female anatomy and female organs in the male anatomy appear to preserve the trace” (*SG* 33). In her account of this botanical and evolutionary mapping of Charlus and Jupien, however, Sedgwick argues that “the analogy opens gaping conceptual abysses when one tries—as [*Sodom and Gomorrah*] repeatedly does—to compare any model of same-sex desire with the plight of the virginal orchid” (220). Porzak, by contrast, states that Sedgwick’s emphasis on these “conceptual abysses” merely results from the fact that her own analysis remains tethered to the “master trope” of the flower and thereby refuses to recognize how the sight of the jellyfish takes

the novel much deeper into a radically queer representation of nature than the orchid-bee analogy allows (10).

According to Porzak, Proust's exploration and representation of the life and reproduction of marine invertebrates mirrors Darwin's own. One of the many reasons why Darwin delayed publication of *Origin*, Porzak notes, was that he was engaged in writing a four-volume study of barnacles. Just like madrepores, barnacles were a precise problem for nineteenth-century science because they "were considered to be exclusively, even paradigmatically, hermaphroditic. What's worse, barnacles were seen as self-fertilizing hermaphrodites—little narcissistic inverts trapped by their own doubly sexed nature in the autoerotic solipsism of their shells" (12). Darwin, therefore, had to prove that there existed at least some mechanism, no matter how rare, by which barnacles could escape their shells and cross-fertilize each other. Otherwise, he would not have been able to conclude that variation through "crossing" was a rule that applied to all of nature. Porzak notes that Darwin did eventually prove this, but only when he happened upon a single barnacle "in which the penis had been cut off," yet still in which "larvae were included in the ova" (qtd. in Porzak 13). This one barnacle enabled Darwin to conclude that barnacles do not only ever fertilize themselves; very occasionally there can be cross-fertilization. Porzak writes:

Imagine how improbable this meeting must have been: a barnacle would have to have lost its penis, recovered from this injury, been fertilized by another barnacle, been chosen out of an ocean's worth of other barnacles by one of Darwin's correspondents, and been dissected by the naturalist in such a way that observation of the ova was possible... If heterosexuality, then, is normative, it is certainly not because anything about it is normal; instead, Darwin discovers and defines crossing, and thus the variation that is nature, as a highly improbable, unlikely, contingent, and nevertheless sustained aberrance. (13)

Note that, as discussed in the introduction, this argument yet again demonstrates why it is important to exercise caution when using the models of biological fertility to describe cultural production or adaptation. Barnacles, in contrast to the more obviously cross-fertilizing example of orchids (along with bees, wasps, rhizomes, and more), were considered in Darwin's and Proust's time (and still today) to be primarily self-fertilizing.⁶¹ Barnacle procreation, therefore, would be far less likely to result in hybridity, mutation, adaptation, variation, and change than it would be to end in simple reproduction of the same. As such, the reproductive discourses that circulated and continue to circulate around barnacles mirror those that circulate around Albertine and the primitive polypary. In all cases, barnacles, polyparies, and young girls (at least, in the narrator's descriptions) are capable of self-fertilization, of reproducing themselves, much like the mechanical reproductions of the photographic representations of Albertine.

To return to Porzak's argument, though, he claims that Proust's focus on the jellyfish at Balbec reflects a growing understanding in nineteenth-century science of the evolutionary unlikelihood of sexual differentiation and heterosexual reproduction. In other words, post-Darwin, human heterosexuality came to be seen as an "aberrance" within the more broadly queer cosmos of nature. Despite the importance of this as both a hermeneutic and political gesture, however, it could be argued that Porzak does not necessarily escape the terms of Sedgwick's critique. To a certain extent, Porzak falls back here on what Sedgwick diagnoses as a tendency to "universalize" about "homosexuality" in nature (Sedgwick does not use the term "queer," given that she wrote at a time before the establishment of queer theory). According to Sedgwick, this universalization is apparent in efforts to biologize and naturalize homosexuality. These efforts (while undoubtedly

⁶¹ For a history of the evolutionary study of barnacle fertilization, see Marjan Barazandeh et al., "Something Darwin Didn't Know About Barnacles: Spermcast Mating in a Common Stalked Species" (2013).

“positive” and “positivist” in their queer Darwinism), nevertheless demonstrate a “lack of heuristic interest” in the specificities of “gay issues” by advocating for “the sheer *normality*... of homosexual orientation” (214). Sedgwick points to this tendency in J. E. Rivers’ argument in *Proust and the Art of Love* (1980), in which he claims that “homosexuality is a perennial adjunct of mammalian sexuality, neither a pathological condition nor a biological perversion. It has always existed, both among humans and among animals” (14). Such arguments, Sedgwick claims, rely on the idea that we simply have to learn how to look at homosexuality in nature in order to recognize the radically queer ecosystem in which humanity participates. This idea also seems to be repeated in more recent queer Darwinist writings, as in the following passage from Timothy Morton’s *The Ecological Thought* (2012):

Plants and animals are hermaphrodites before they are bisexual and bisexual before they are heterosexual. Most plants and animals are either sequentially or simultaneously hermaphroditic; many live with constant transgender switching. A statistically significant proportion of white-tailed deer (10 percent plus) are intersex. Hermaphroditic snails curl around each other with seemingly palpable affection. Seeking an encounter with another individual is good for plants, but they do it via other species such as insects and birds; thus, bees and flowers evolve together, through mutually beneficial ‘deviations.’

Heterosexual reproduction is a late addition to a gigantic ocean of asexual division. And it looks like a good option (rather than a very expensive add-on) only from the ‘point of view’ of macromolecular replicators. It doesn’t make sense from the standpoint of these molecules’ vehicles... Why do you think, after several hundred million years of homosexual behaviors, that gay life forms persist? Could it be that homosexuality is no problem from DNA’s point of view? Given that binary gender performance floats in a

colossal welter of transgender, homosexual and asexual phenotypes, isn't it time to drop the idea of Nature as a straight, binary, exclusive realm? (84)

Again, while I do not wish to deny that this argument is critically and politically compelling, it does seem to function as a kind of parallel of the neo-Darwinists' accounts of nature and film theorists' responses to *Adaptation*, discussed in the previous chapter. Indeed, not only do Dawkins' "macromolecular replicators" make a telling reappearance in Morton's argument, but the idea that we can throw off the yoke of sexual asymmetry and gender hierarchies simply by looking more closely at nature seems to recall Charlie Kaufman's dream of making a movie that is "simply about flowers."

Porzak, for his part, offers an implicit critique of accounts such as these, arguing that the goal of an interdisciplinary humanities should not be simply to use the findings of a supposedly "disinterested and monolithic 'science' to judge the truth-value of aesthetic arguments" (25). He states explicitly that this is the paradigm of the "literary Darwinists," discussed in the introduction, who "attempt to prove the validity of certain cultural modes, including the interpretation of cultural products, via a comparison with the findings of natural science" (25). "The nature that they find," Porzak goes on to argue, "confirms what they already believe" and has "nothing to do with the scientific impulse to discover in nature the unexpected" (25). Thus, while political resistance in the present may thrive from holding up a mirror to a nature that is hermaphroditic and bisexual before it is heterosexual, that nonetheless seems to fall into the trap of grounding a particularized politics on a particularized ontology. The idea that we could shake off human anxieties about sexuality and gender simply by gaining a more accurate representation of the natural world arguably repeats the neo-Darwinian gesture of naturalizing certain gender hierarchies as a consequence of evolution. More importantly, that gesture refuses to recognize the

specific ways in which characterizations of life and nature can be strategically mobilized and differentially deployed by humanists and scientists alike to confirm, as Porzak puts it, “what they already believe” (25).

To build on Porzak’s engaging analysis, in this case, we can say that, in Proust’s novel, it seems particularly telling that the cnidarian of young girls should be so fundamentally resistant to visualization, whereas the cnidarian of Charlus should be so immediately acquiescent to representation. The moment clearly demonstrates how nature is represented in different ways at different moments in Proust’s novel, depending on whether or not those moments involve the “petrifying” reality of women or the revelatory display of men. Even if the narrator notes that Charlus seems to “resemble” a woman (endowing him with a hermaphroditism that Sedgwick describes as a “red herring”), nonetheless his male homosexual encounter with Jupien is what attracts the narrator’s gaze, whereas that gaze is deflected whenever it encounters the female homosexuality of Albertine and the other young girls (Sedgwick 220). If Porzak is right that the narrator gains a new way of seeing the “aberrance” of heterosexuality by looking at the jellyfish, therefore, then it is telling that the narrator gains no insight into how to look at Albertine (22). Moreover, while the narrator does indeed recognize the beauty of a jellyfish in this moment, it is notable that it is beautiful only insofar as it resembles an orchid, a flower of the land that recalls Charlus and no longer a flower of the sea that would recall the primitive polypary. If anything, therefore, this moment of revelation marks a displacement of the jellyfish, as the narrator shrinks quickly back from his brief foray into the sea to return to the “master trope” of the flower that continues to dominate the remainder of the novel (10). I would argue, therefore, that even if gender and sexuality in nature really are dynamic and contingent spectra, as Morton’s argument demonstrates, and even if we should always make a determined effort to see and represent them

as such, it is clear that Proust's narrator broke those spectra up in specific ways, leading to representations of human and nonhuman life that are differentially distributed across the characters of his novel, as evidenced by the different representations of male and female homosexuality that Sedgwick and Ladenson identify.

The distinct coordination of evolutionary and media-theoretical discourses around Albertine on the one hand and Charlus on the other suggest, therefore, that Proust's conception of both "media" and "life" are not as monolithic as they are in either Benjamin or Bergson. While Benjamin was right to insist that the new technologies of film and photography led to fundamental changes in the production and distribution of art, their deployment throughout Proust's novel nevertheless does not suggest that his narrator invokes them to respond univocally to the overwhelming stimuli of "life." In fact, if Proust's novel does reveal the historical conditions that prompted both Bergson's attempt to biologize human life and the narrator's urge to transcend time through art, it is important to note that there are certain aspects of life that he retreats from more actively than others. If the jellyfish-Charlus is ultimately assimilated within the queer ecology of Proust's modern world, the Medusan Albertine represents the data that the narrator must never see, represent, or come to know. Thus, Proust's novel does not capture the timeless biology of Bergson's "creative evolution" (207) but nor does it univocally resist the assimilation of the data of modernity; rather, across its varied responses to different characters and genders, it details the specific panic prompted in the narrator by his encounter with a group of young girls and, most particularly, the life of Albertine.

By tracing the various ways in which discourses of media transformation and biological reproduction and fertilization are distributed across Proust's novel, I have tried in this chapter to demonstrate that representations of nature, life, biology, art, and adaptation frequently tell us far

more about the narrator's anxiety concerning the life of Albertine than they do about Albertine's reality. If the final flower of Proust's novel grows from his interactions with Albertine, and if the photographic representations that he reproduces of her stem from stimuli in the real, I have argued that his response to her is first and foremost to retreat into his "inner dark room" in order to make those representations possible (*SYG* 450). Whereas Albertine does seem to be caught, in the narrator's descriptions, within a dynamic, contingent, "time of life" (Guerlac 61), that representation—the reproduction of Albertine's image—seems only ever to serve the biological and cultural development of the narrator, who absorbs her "in greedy drafts" to grow the flowers of his novel out of the soil of her grave (*SYG* 375).

In conclusion, therefore, I would argue that this encourages us to rethink ideas about the fertility, survival, reproduction, dissemination, and reception of adaptation across biology and culture in Proust's novel. In the next chapter, I will take up this same idea in an analysis of a writer who frequently adapts the metaphors, images, themes, and aesthetics of that novel: namely, Vladimir Nabokov. Similarly to Proust, I will argue, Nabokov's adaptations seem to reveal his anxieties about a lack of control over nature and art, leading him to sacrifice the lives of his female characters in the name of his artistic productions.

CHAPTER THREE

“A SYSTEM OF TOTAL TYRANNY”: AGENCY AND ADAPTATION IN NABOKOV

“Yes, Life is more talented than we,” sighed the writer, tapping the cardboard mouthpiece of his Russian cigarette against the lid of his case. “The plots Life thinks up now and then! How can we compete with that goddess? Her works are untranslatable, indescribable.” (“The Passenger” 183)

With this vignette of authorial self-pity, Vladimir Nabokov opens his short story, “The Passenger,” originally written in Russian and published in 1927. The air of resignation that hangs over the writer’s speech recalls several of the themes that I have traced throughout this dissertation. There is an author worrying over his inability to create a work of art that matches the complexity and dynamism of (capital L) “Life”; his anxious introspection would not be out of place in the works of either Proust or Kaufman. There is an explicit gendering of “Life” as female, a “goddess,” suggestive both of the mythological tradition that associates nature with women (particularly fertile mothers: Gaia, Rhea, Demeter, and more), and the tendency of nineteenth- and early-twentieth-century science to personify nature as female. There is, by contrast, a gendering of the writer as male, recalling Proust and anticipating Kaufman, slotting into the extended poetic tradition of male-authored works that attempt (and complain about their failure) to describe a distant, idealized, and generally voiceless woman.⁶² Indeed, in a manner typical of that tradition, the female persona referenced here is immediately passed over in favor of a conversation between two men. Answering the complaints of the writer is another man, a critic,

⁶² I am thinking of the sonnet tradition, primarily the cycles of Sidney (1591) and Shakespeare (1609). At the end of *Lolita* (1955), as I discuss at the end of this chapter, Humbert Humbert hopes that Lolita will be preserved in “prophetic sonnets, the refuge of art” (309).

who responds that the writer is unable to describe the bounteous goddess because she is Life's original author: "'Copyright by the author,' suggested the critic, smiling" (183). In response, the male writer argues that his only recourse in dealing with the goddess of Life is to become an adapter, to shape and edit "her creations":

All that's left to us is to treat her creations as a film producer does a famous novel. The producer needs to prevent servant maids from being bored on Saturday nights; therefore he alters the novel beyond recognition; minces it, turns it inside out, throws out hundreds of episodes, introduces new characters and incidents he has invented himself—and all this for the sole purpose of having an entertaining film unfold without a hitch, punishing virtue in the beginning and vice at the end, a film perfectly natural in terms of its own conventions and, above all, furnished with an unexpected but all-resolving outcome. Exactly thus do we, writers, alter the themes of Life to suit us in our drive toward some kind of conventional harmony, some kind of artistic conciseness. We spice our savorless plagiarisms with our own devices. We think that Life's performance is too sweeping, too uneven, that her genius is too untidy. To indulge our readers, we cut out of Life's untrammelled novels our neat little tales for the use of schoolchildren. (183)

In other words, for the writer contained within this Nabokovian story, writing the film of Life means adapting a woman's overgrown novel. The gendering of this process works in two directions at once. Not only is it the male author's job to prune the "untidy" work of the goddess of Life, but he must do so in such a way as to appease the seemingly lower-class tastes of "servant maids." The construction of art involves transforming Life into something that can be consumed by an audience judged in advance to be easily "bored" and even intellectually stunted (if this is only implied in the gibe at the "servant maids," then it seems explicit in the

representation of the audience as “schoolchildren”).⁶³ In a process that is at once formalist and conservative, the work of the male author is essentially the same as an editor: he must chop out pages and introduce characters to create a work of art that disguises itself as “perfectly natural in terms of its own conventions” and that will not challenge the expectations of the (female) audience for which it is intended.

Leaving the sexism and classism of this account aside momentarily (I will return to them later), I want to consider the implications of this description for a theory of adaptation. While it is important not to take the writer as a mouthpiece for Nabokov himself here, it seems that his description of the artistic process highlights an important tension in the theory and practice of adaptation, a tension that is particularly apparent in works or theories that explore the crossovers between art and life, culture and biology. This tension is the question of agency, which is something that evolutionary theory has struggled with since Darwin. “The Passenger” suggests that the task of the writer is to claim agency and control over the wild machinations of Life, and whereas Life is figured as a careless actor whose “performance is too sweeping, too uneven,” the writer is by contrast a skilled producer or stage manager, perfectly in control of his art form (183). In this chapter, I will trace how this issue of agency recurs throughout Nabokov’s work, most notably in texts in which he explores both the processes of cultural adaptation and the nature of evolution. I will argue that while Nabokov’s hybrid works are often characterized by their ceaseless mixture of different media (something which is already evident from this short excerpt from “The Passenger”), they also display a rather obsessive need to manage the actions of their characters and the responses of their readers. In this way, they exhibit an anxiety over the locus of

⁶³ The condescension towards film, incidentally, also recalls the history of film adaptations as so-called easier, introductory versions to classic literary texts. For an assessment of that history, see Thomas Leitch, *Film Adaptation and its Discontents* (2007).

agency in art, an anxiety that manifests itself through maximally knowledgeable narrators who exercise supreme control over the stories they tell. In analyzing this theme, I argue that, while Nabokov was undoubtedly an accomplished lepidopterologist, a creative evolutionary theorist, and a highly adaptive writer, what links his writings across each of these fields is an anxiety about the “unruly” world of nature, an unruliness that can only be tamed through the establishment of agential artists, intent on adapting life for their own ends.

Given Nabokov’s relentlessly combinatorial style of writing, I struggle in this chapter with the problem of moving between discussions of different media forms (including film, theatre, painting, and more) without being able to treat the specificities of each one in detail. To organize the discussion, therefore, I focus on how, in borrowing from each of these different media, Nabokov repeatedly stages a particular dynamic of power between his narrators/artists/directors and their readers/audiences/spectators. I begin with a more detailed analysis of “The Passenger,” intersected with a broader discussion of the multimedia aesthetics of some of Nabokov’s other early works. I argue that “The Passenger” strives to predict a certain kind of response by borrowing the techniques of framing and focus common to the visual arts. At the same time, the figure of the critic operates as a kind of ideal audience for the story, who models for the reader what it means to be in on the joke of artistic creation. Subsequently, I argue that this staged model of reception is also present in Nabokov’s works that engage with evolution and nature, works that, as he himself puts it, navigate the “high ridge where the mountainside of ‘scientific’ knowledge joins the opposite slope of ‘artistic’ imagination” (qtd. in Pyle 71). Primary among these is *The Gift*, written in the decade following “The Passenger,” while Nabokov was still living in Berlin, and published in 1938. I focus particularly on the unpublished appendix to this novel, “Father’s Butterflies,” which is Nabokov’s most extended exploration of

evolutionary theory in the context of his creative fiction. I argue that, similarly to the dialogue of production and reception staged within “The Passenger,” *The Gift* and “Father’s Butterflies” represent evolution as a theatricalized encounter between an all-powerful theatre producer and an enthralled audience. Nabokov frames this as an idealist response to what the narrator, Fyodor Gordunov-Cherdyntsev, sees as the vulgar materialism of evolution, but I argue that it is also symptomatic of a need to render humans—specifically men—the active creators of meaning and value in a seemingly non-agential, valueless world. Tellingly, these values operate within a tradition of masculinist idealism that reveals certain power dynamics and gender hierarchies, hierarchies that I critique with reference to the feminist philosophies of Simone de Beauvoir and Judith Butler. This brings me, in the final section of the chapter, to an assessment of the most ethically fraught exploration of masculinity and agency in Nabokov’s oeuvre: *Lolita* (1955). I argue that Humbert Humbert’s manipulation of Lolita’s story and person mirrors several of the ideas about agential authorship found elsewhere in Nabokov’s work. *Lolita*, therefore, becomes the limit case to test the ethics of the adaptive process described by the writer in “The Passenger.” While this does not involve making a simple equivocation between Humbert and Nabokov, it does involve recognizing what is at stake in the process of adapting the novel of life into a neat little tale. In *Lolita*, quite clearly, that process operates at the expense of a young girl who is silenced and abused for the narrator’s gain. Tellingly, the multimedia aesthetics of earlier works recur in Humbert’s descriptions of this process, as do the idealist tropes of Nabokov’s evolutionary fiction. In *Lolita*, however, they work to incorporate the eponymous young girl into Humbert’s destructively idealist framework, excluding all sense of Lolita’s bodily or material existence—all sense of her *life*. This process is in turn deployed to manage the reader’s response to the narrative, recalling the dynamics of “The Passenger.” In this way, I argue that *Lolita* and

several of Nabokov's other works demonstrate how the agential work of adaptation, undertaken for the creation of artworks that unfold "without a hitch," is far from neutral ("The Passenger" 183). Rather, adaptation operates as an effort to restore (male) agency to the evolutionary web of life, an agency that leads typically to the abuse of (female) characters and the manipulation of audiences or readers who, like schoolchildren, must learn to accept the stories of their masters.

"Confess": Knowing (Your) Audiences

In "The Passenger," after the writer's and the critic's opening metafictional discussion of the process of adapting life into art, the writer tells the critic a story that is intended to highlight the symbolic differences between fictional and non-fictional narratives. This story recounts an "experience" that once happened to him when he was "traveling in the sleeping car of an express train" (183). Having been alone when he went to sleep, he woke up in the middle of the night and spied "a foot of considerable size, in a coarse sock, through which the bluish toenail had worked a hole" (184). This foot belonged to a man sleeping in the other berth in the cabin and was a source of anxiety for the writer. "I found it disturbing that all I knew of the man was that evil-looking leg" (184). The narrator then goes on to describe how he heard the unknown man sobbing during the night and became increasingly suspicious about this the following morning, when the train was stopped by the police. The police, searching for a murder suspect, interviewed the sobbing man, but they did not arrest him. At this point in the story, the narrator breaks off and addresses the critic once more:

But think only how nice it would have seemed—from the writer's viewpoint, naturally—
if the evil-footed, weeping passenger had turned out to be a murderer, how nicely his

tears in the night could have been explained, and, what is more, how nicely all that would have fitted into the frame of my night journey, the frame of a short story. (187)

The critic responds that, with a little editing, it would have been perfectly possible to have “created a well-rounded story” by transforming the “fellow traveler into a murderer” (187). The story, however, ends with no such resolution, with the writer simply stating: “the trouble is that we are in the dark—maybe Life had in mind something totally different, something much more subtle and deep. The trouble is that I did not learn, and shall never learn, why the passenger cried” (187).

There are several points worth noting about the story’s treatment of adaptation. The first is its seemingly deliberate use of cinematic framing devices to negotiate the ambiguity between an individual describing or documenting something that happened to him in life and a narrator crafting a story for his reader. Admittedly, readers are encouraged to recognize this cinematic style by the mention of film production in the incipit, but it also seems clear that the writer’s narrative deliberately makes use of visual techniques. For example, the limits of the short story frame (“the frame of my night journey”), coupled with the darkness of the railway carriage, mean that the lens of the narrative is precisely focused on a single image: a close-up of an “evil-looking leg” hanging off the side of a berth (187; 183). The gaze of the reader aligns precisely with the gaze of the narrator or writer, both of whom remain “in the dark” throughout the entirety of the narrative. Even that expression “in the dark” recalls both ignorance and the cinematic experience, and the same phrase is used in explicit reference to movie-watching in the title of Nabokov’s more obviously cinematic short story, *Laughter in the Dark* (1938), his self-translation of a work called *Kamera obskura* in Russian (1932). The visual focus on the leg in “The Passenger” also determines how the story’s events unfold and are interpreted. As we remain focused on the leg,

we hear but do not see the man sobbing. The sobbing, in a sense, takes place off-screen, as if the frame of the narrative has figuratively dismembered this character, thereby contributing to the horrifying effect created by the disembodied limb and echoing the visceral discourse used to describe the process of adaptation in the story's frame narrative (the writer "minces" life, "turns it inside out"). As a result, the image of the limb introduces a crisis of visualization that is caused by the writer's inability to capture the totality of life: "No matter how hard I tried to imagine the aspect of my nocturnal fellow traveler all I could visualize was that conspicuous toenail which showed its bluish mother-of-pearl sheen through a hole in the wool of the sock" (183).

The narrator lingers obsessively over this image, and part of his problem is that there is no exposition or backstory provided for it. He comes up against the impenetrable surface of the visual, unable to position the foot meaningfully within a narrative. In this way, "The Passenger" subverts Lessing's theory of media specificity, mentioned previously, in which he argued that "bodies [in space], with their visible properties, are the peculiar objects of painting," whereas "actions [in time] are the peculiar subjects of poetry" (ch. 16, pp. 150-1). Moreover, it undermines Linda Hutcheon's taxonomy of different "modes of engagement" in *A Theory of Adaptation* (2012), in which she distinguished between the emphasis placed on "showing" in visual art forms and the emphasis placed on "telling" in narrative art forms:

In the telling mode—in narrative literature, for example—our engagement begins in the realm of the imagination, which is simultaneously controlled by the selected, directing words of the text and liberated—that is, unconstrained by the limits of the visual or aural... But with the move to the mode of showing, as in film and stage adaptations, we are caught in an unrelenting, forward-driving story. And we have moved from the imagination to the realm of direct perception. (23)

Nabokov's story works in almost exactly the opposite way. Neither the writer who tells the story in "The Passenger," nor the critic who engages with it, are "unconstrained by the limits of the visual." In fact, the visual defines the contours of the entire narrative; the narrator remains unable to "imagine the aspect" of the crying man, and the story behind his "evil-looking leg" goes undisclosed ("The Passenger" 83). In this regard, Nabokov also frustrates what Hutcheon identifies as one of the "pleasures" of reading narrativized adaptations of films, namely the possibility of obtaining more information about the characters' thoughts and backstories. Hutcheon argues that "fans of films enjoy their novelizations because they provide insights into characters' thought processes and more details about their background. And, after all, that is what novels have always done well" (*Theory* 118). The writer's problem in "The Passenger," of course, is that no such background is ever revealed: "I did not learn, and shall never learn, why the passenger cried" (187).

Nabokov's reliance on visual techniques is a well-documented part of his aesthetic. Nabokov himself remarked that he had a tendency to "think in images" (*Strong Opinions* 14), and in response to one of the earliest treatments of the influence of cinema on his work, he noted: "the basic idea [of] my constantly introducing cinema themes, cinema lore, and cinematophors into my literary compositions cannot be contested" (*Selected Letters* 537). Importantly, in a way that is not immediately evident in "The Passenger," Nabokov often used these techniques to explore the intersection between voyeurism and representation, most notably in stories narrated by men that concern the manipulation of women, often young girls. This is particularly evident in his early novella, *The Enchanter*, originally written in 1939, which anticipates several of the themes of *Lolita*, as well as some of its formal set pieces. In *The Enchanter*, the unnamed narrator's possessive desire for a young girl explicitly coalesces around a visual close-up that settles on her

body and legs. This close-up is a source of visual pleasure for the narrator which reaches a climax when he masturbates over her sleeping body, but it is a source of horror for the young girl and the reader. The scene itself explicitly adapts Proust's descriptions of Albertine in *The Prisoner* (the girl is referred to as "the captive") and looks forward to Humbert's and Lolita's night in the "Enchanted Hunters" motel (whose name recalls the earlier novella's title). The narrator gets into bed with the young girl while she sleeps: "He undressed, lay down to the left of the captive, rocking her ever so slightly, and froze, cautiously catching his breath" (54). Then, the narrative mediates between the aesthetics of painting and filmmaking as a still image of the sleeping girl is gradually transformed into a panning shot that travels down her legs:

So. A priceless original: sleeping girl, oil. Her face in its soft nest of curls, scattered here, wadded together there, with those little fissures on her parched lips, and that special crease in the eyelids over the barely joined lashes, had a russet, roseate tint where the lighted cheek—whose Florentine outline was a smile in itself—showed through. Sleep, my precious, don't listen to me.

Already his gaze (the self-aware gaze of one who is observing an execution or a point at the bottom of an abyss) was creeping downward along her form and his left hand was in motion... Finally, making up his mind, he gently stroked her long, just slightly parted, faintly sticky legs, which grew cooler and a little coarser on the way down, and progressively warmer further up. (54)

As I argue below in relation to *Lolita*, here the management of an explicitly masturbatory and rapacious scene allows the narrator to straddle the roles of both director and actor, with the young girl transformed into a dead object, a prop for the narrator to both gaze at and use. She is explicitly commodified as an object that circulates within a visual economy coordinated around

the “male gaze,” as a continuum is created between the scopophilia of cinema and the commodity culture of Western painting (Mulvey 14). Even the medium of the painting is notable since, as John Berger has argued, there is an explicit art historical “analogy between *possessing* and the way of seeing which is incorporated in oil paintings” (83). As oil paintings were historically used to depict “things which in reality are buyable,” Berger argues that they “reduced everything to the equality of objects” (83). (Nabokov himself drew a similar connection in *Ada*, when he described Demon Veen as a collector of “old masters and young mistresses,” 2). Importantly, however, *The Enchanter* reveals the mystification at work in this art historical discourse. The use of the word “priceless” suggests a reverent idealism that masks the system of commodification, objectification, and abuse within which the artwork and the girl (the girl-as-artwork) circulate. Her sleeping body allows him to present the illusion of her being there simply as a work of art, an image for visual consumption, rather than an actual and material body that he touches and abuses. I will return to this uneasy tension between idealism and materialism in the following parts of the chapter, as it also recurs in Nabokov’s engagement with what he considered to be the overly utilitarian or materialist models of evolution and biological adaptation.

In *The Enchanter*, the overlapping force of physical and visual power that this scene creates is felt even more forcefully when the young girl wakes up, seemingly responding to the commodifying gaze of the enchanter with a gaze of her own: “He saw that she was fully awake and looking wild-eyed at his rearing nudity... He also saw how it appeared to her: some monstrosity, some ghastly disease” (57). In what follows, the young girl is described as a vulnerable child in a horror film; she tries to protect herself “like a child in a screen drama... tearing from his grasp and still yelling senselessly” (57). As the story subsequently hurtles towards its conclusion, the perpetrator-enchanter stumbles into the street and throws himself

under a truck, dying in an “instantaneous cinema of dismemberment” that recalls both the neatness of the filmic model described in “The Passenger” (“punishing virtue in the beginning and vice at the end”) and also the themes of visual dismemberment common to both narratives (*The Enchanter* 59; “The Passenger” 183). The novel’s closing sentence explicitly relates death to the extinguishing of the projection apparatus at the end of a movie, describing the “zigzag gymnastics of lightning, spectrogram of a thunderbolt’s split seconds—and the film of life had burst” (59).

We can choose whether or not to read this ending ironically. In one sense, the tragic arc of the narrative punishes the enchanter for his abuse of the young girl. In another sense, however, this “neat” resolution is revealed as merely a convention of literature and film. *The Enchanter* has to end, and the oncoming truck that coincides with the final frame of the film reel offers the “kind of artistic conciseness” that the writer in “The Passenger” knows to be the privilege of art (183). Indeed, that conciseness means that, at the end of the narrative, we are left to wonder what has happened to the young girl, who is afforded neither narrative space nor agency: she is literally nowhere to be seen, though the horror of her experience is surely that it continues beyond the frame of the story, beyond the enchanter’s “film of life” (59).

A similar structure and set of motifs are also developed in *Laughter in the Dark*, which Nabokov translated into English in 1938, the year before he wrote *The Enchanter*. As mentioned, this is arguably Nabokov’s most explicitly cinematic novel, centering on the life of an art and cinema critic named Albert Albinus. Nabokov actively drew attention to the transmedia aesthetics that lay behind the conception of this novel, noting: “I wanted to write the entire book as if it were a film... I wasn’t thinking of the form of a screenplay; it’s a verbal imitation of what was then termed a ‘photoplay’” (qtd. in Appel 258-9). Furthermore, the novel also explores the

process of blending and mixing medias, since Albinus's great and unrealized idea is to adapt and then animate a painting for the screen. Albinus situates this idea at a distinct moment in cinematic history, imagining it as similar to one of the "colored animated drawings—which had just begun to appear at the time," seemingly an implicit reference to Disney's adaptation of *Snow White and the Seven Dwarves*, released in 1937. Of course, that this film—the first example of a full-length animated feature—should have told the story of a "sleeping girl" awoken by a man's unsolicited advances (and that its formal structure is literally the filmic coming-to-life of a woman visualized as the painted image of death) has clear resonances with the themes of *The Enchanter*, even though *The Enchanter*'s major mythological intertext is "Little Red Riding Hood," with its recurrent imagery of a predatory wolf stalking a vulnerable young girl.⁶⁴

That said, Albinus's interest in cartoon animation is (at least superficially) more innocent. He dreams of using this technique to have "some well-known picture, preferably of the Dutch School, perfectly reproduced on the screen in vivid colors and then brought to life—movement and gesture graphically developed in complete harmony with their static state in the picture" (2). Incidentally, this idea anticipates almost exactly the work of Peter Greenaway, whose cinematic tableaux of Dutch painters will be the focus of the following chapter, but in *Laughter in the Dark*, Albinus's dream of combining the arts of painting and cinema goes unfulfilled. It is extinguished by a film producer who says that "it would entail a delicacy of work calling for novel improvements in the method of animation, and would cost a whole lot of money" (3). The producer tells him that "such a film, owing to its laborious designing, could not reasonably run longer than several minutes" and "even then it would bore most people to death and be a general

⁶⁴ For an overview of this motif in the novella, see Dmitri Nabokov's commentary, "On a Book Entitled *The Enchanter*" (76).

disappointment” (3). A second film producer echoes the first, simply telling Albinus that he “can’t risk fancy pictures” (3). Again, these commentaries recall the remarks of the writer in “The Passenger,” who views artistic production as a process of conventionalizing, taming, and editing wild ideas to make them comfortably assimilable for audiences.

This theme of conventionalizing is also reflected in the overall structure of the novel, which makes frequent use of formulaic genre tropes and cinematic motifs. The very first line of the novel suggests that it apes certain narrative archetypes, as the story is announced in the style of a Hollywood logline or a fairy story: “Once upon a time there lived in Berlin, Germany, a man called Albinus. He was rich, respectable, happy; one day he abandoned his wife for the sake of a youthful mistress; he loved; was not loved; and his life ended in disaster” (1). This tongue-in-cheek introduction is followed by a sly piece of narratorial commentary:

This is the whole story, and we might have left it at that had there not been profit and pleasure in the telling; and although there is plenty of space on a gravestone to contain, bound in moss, the abridged version of a man’s life, detail is always welcome. (1)

That detail involves the figure of a seventeen-year-old woman, Margot, whom Albinus encounters in a dark movie theatre and subsequently falls in love with. Albinus abandons his comfortable, bourgeois lifestyle to be with her, but she betrays him for her former lover, Axel Rex, killing Albinus and stealing his money. According to Barbara Wylie in her book *Nabokov at the Movies* (2003), *Laughter in the Dark* could be classified, “plot-wise, as melodrama” (71). And, as Thomas Seifrid (1996) notes, it echoes several other canonical works, such as *Anna Karenina*, an account of “adultery leading to death” (2) whose title is foregrounded in the text through the presence of a character named Dorianna Karenina. To this intertext we might add

Oedipus Rex, which is also suggested by a name (Axel Rex), as well as by the fate meted out to Albinus prior to his murder: blindness.

As far as Margot is concerned, Wylie argues that she functions as one in a long line of *femme fatales* in Nabokov's novels. Wylie notes that the relationship between Margot, Rex, and Albinus anticipates the destructive romantic triangles that went on to typify the film noir genre of the later 1940s:

Nabokov's early work features characters who are, either in male terms anti-heroes—alienated, estranged, solitary, even psychotic—or in female terms, *femmes fatales*—seductive, cold, manipulative and mercenary. They are individuals caught up in destructive, three-sided relationships which often involve a central criminal act and who become overwhelmed by an ensuing struggle for power and, ultimately, survival, driven by a compulsive obsession with an object—real or imaginary—of desire. (*Nabokov at the Movies* 96)

According to Brian Boyd, this engagement with cinematic tropes and screen archetypes reveals Nabokov playing with the “grotesqueness of cinematic cliché” (*Russian* 363). As Wylie notes, Margot is the “epitome” of that cliché, enraptured by the fantasy of Hollywood stardom. She is described in the novel as clinging to a “vision of herself as a screen beauty in gorgeous furs being helped out of a gorgeous car by a gorgeous hotel porter under a giant umbrella.” According to Wylie, the comedy of the novel emerges as “Nabokov gently bursts Margot's delightfully cinematically inspired dream bubble, sardonically revealing its clichéd absurdity” (71).

However, Wylie also points out that the tragedy of Margot's narrative is her “desperation to construct another world into which she can someday escape,” hence her attachment to the Hollywood dream. We can go further than this, though, for while the other world that Margot

dreams of is certainly Hollywood, in her efforts to escape into that world she already exhibits, as mentioned, the tropes of one of its stereotypical character types: the *femme fatale*, willing to do anything to achieve her aims. She unwittingly acts out, in other words, a mythologized role that is structured around the desires and anxieties of men. If she is trapped, therefore, then it is because she is both subject to the possessive, idealizing, and objectifying male gaze of Albinus and ensnared by the illusory dream of a Hollywood that can offer her no other role than the one she is already playing. In poststructuralist feminist terms, this suggests a particular kind of “citationality” to the roles that are made available to the female characters in Nabokov’s fiction. In Judith Butler’s terms, Margot unconsciously reproduces the tropes of the *femme fatale* as “a repetition and a ritual, which achieves its effects through its naturalization in the context of a body, understood, in part, as a culturally sustained temporal duration” (*Gender Trouble*, xv).⁶⁵ This is characteristic of the naturalization of certain socially constructed roles and value systems in Nabokov’s works that engage with ideas of adaptation (and, I will argue, evolution). Indeed, the process of naturalization is already suggested by the writer in “The Passenger,” who describes, paradoxically, the process of producing a film that is “*perfectly natural* in terms of its own *conventions*” (183). Margot reveals the extent to which those conventions mask particular ideologies, structuring and policing the kinds of roles that women are allowed to adopt and perform. Indeed, in all of Nabokov’s works exploring the crossovers between literature and cinema that I have mentioned above, it is telling that the female characters fit into one of two stereotypes: the woman as helpless victim, prey to the male monster and a stereotype of the

⁶⁵ In *Bodies that Matter* (1993), Butler would develop this theory of “performativity” into one of “citationality,” which seems to encapsulate the way in which Margot already plays a role that precedes her: “In the first instance, performativity must be understood not as a singular or deliberate ‘act,’ but, rather, as the reiterative and *citational* practice by which discourse produces the effects that it names” (xii).

horror genre, or the woman as *femme fatale*, characterized by her destructive sexuality and a stereotype of film noir. In Nabokov's early film-texts, in other words, women are imagined as either the victims of some monstrous male violence or the dark and mysterious destroyers of masculine libido and identity (Albinus' "life ended in disaster," *Laughter in the Dark*, 1).

Whether or not Nabokov is aware of this process (an idea which, in itself, assumes a kind of intentional agency and authorial subjectivity that I will bring into question), his novels continue to naturalize the gender hierarchies upon which they depend.

In regard to the theory of adaptation, it could be argued that these recognizable tropes and character types form part of a wider strategy on the part of Nabokov's narrators to manage the structure and reception of their stories. As I have already suggested, this process is explicitly foregrounded in "The Passenger," wherein the techniques of visual framing and narrative structure elicit active responses from the critic at key moments in the story. This process draws attention to the specific operations of meaning-making at work within the production and reception of an adapted text, particularly one that operates within the conventions of a particular genre or medium. The critic interrupts, for example, when the central image of the foot—the focal point of the narrative—is first introduced. The interruption occurs, moreover, while the writer is self-reflexively and languidly drawing attention to some of the conventional tropes of storytelling:

And here let me use a device cropping up with dreary frequency in the sort of story to which mine promises to belong. Here it is—that old device which you must know so well: 'In the middle of the night I woke up suddenly.' What follows, however, is something less stale. 'I woke up and saw a foot.'

‘Excuse me, a what?’ interrupted the modest critic, leaning forward and lifting up his finger.

‘I saw a foot,’ repeated the writer. (184)

The description of the man’s sobs follows the same pattern. The critic interrupts to ask, “What’s that?” before clarifying: “Sobbing? I see” (185). He then goes on “listening to the narrator” (185). Both moments mark the centrality of the foot and the sobbing, demonstrating how an engaged reader might ask questions at particular moments in a story. It should be noted, however, that the critic offers no commentary of his own here. His task, at least in the context of this story, seems to be to identify the clues that the writer has scattered throughout the narrative in advance. This is evident from the writer’s interrogation of the critic once he has finished his tale:

“Confess,” spoke the writer again, “that beginning with the moment when I mentioned the police and the unscheduled stop, you were sure my sobbing passenger was a criminal?”

“I know your manner,” said the critic, touching his interlocutor’s shoulder with the tips of his fingers and, in a gesture peculiar to him, instantly snatching back his hand. “If you were writing a detective story, your villain would have turned out to be not the person whom none of the characters suspect but the person whom everybody in the story expects from the very beginning, thus fooling the experienced reader who is used to solutions proving to be *not* the obvious ones. I am well aware that you like to produce an impression of inexpectancy by means of the most natural denouement; but don’t get carried away by your own method. (187)

The critic here models the process of avoiding the traps set by the writer and arriving at an interpretation that has already been predicted in advance. Though he seems engaged and

attentive, the form of his engagement is decidedly passive. At least, the critic does not ever escape or subvert what Hans Robert Jauss calls the “horizon of expectation” (12) previously established by the writer, nor does he fill in any hermeneutic “gaps,” in the sense described by Wolfgang Iser (1526). Even in comparison with nineteenth-century literary theory, the critic seems a relatively passive participant within the hermeneutic process. On the one hand, the writer’s description of the act of tidying up art recalls Ernest in Oscar Wilde’s “The Critic as Artist” (1891), who claims that the task of the writer is “to shadow forth the world which we already know, and of which, I fancy, we would each one of us be wearied by if Art, with her fine spirit of choice and delicate instinct of selection, did not, as it were, purify it for us, and give to it a momentary perfection” (44-5). On the other hand, the critic of Nabokov’s short story is no Gilbert, who in that same Wildean dialogue challenges Ernest and argues that “without the critical faculty, there is no artistic creation at all... the spirit of choice, that subtle tact of omission, is really the critical faculty in one of its characteristic moods, and no one who does not possess this critical faculty can create anything at all in art” (58). While the writer certainly demonstrates a critical faculty in “The Passenger,” no comparative creative agency is afforded to the critic, whose only function seems to be to come to “know [the] manner” of the writer (187).

For this reason, I would argue that the critic in this short story functions as a paradigmatic example of what Linda Hutcheon, in explicit dialogue with reader response theory, calls a “knowing audience” (*Theory* 120). Hutcheon argues that adaptive works of art—works that actively dialogue with certain tropes, conventions, expectations—can have equal but different impacts on those who know that a work is an adaptation and those who do not know. “If we do not know that what we are experiencing actually *is* an adaptation, we simply experience the adaptation as we would any other work” (120). For this reason, she argues, “known adaptations

obviously function similar to genres: they set up audience expectations through a set of norms that guide our encounter with the adapting work we are experiencing” (121). What is evident from “The Passenger,” though, is how those norms are used to manage a particular sort of response, one that the writer ultimately wishes the critic to “confess” to, as if he too were a criminal, guilty not of murder but of interpretation (187). Incidentally, it is also worth noting that precisely what the writer wants the critic to be able to identify are the signs of male violence towards women. Had the writer wanted to transform his traveler “into a murderer,” he notes, he simply would have had to add certain details: “I would have alluded to the passionate love he had for his wife. All kinds of inventions are possible” (187). The critic, as a “knowing audience,” would then already have been primed in advance to accept this narrative of domestic violence, and the writer would have been able to make him “confess” to his complicity in this interpretation.

Importantly, if the critic escapes any sentencing by the writer, then it is only because he bears witness to the writer’s true skills, thereby marking himself out as precisely *not* one of the “servant maids” for whom the finished story would have been intended (183). What this demonstrates, though, is that there is a clear hierarchy of reception that is based (more or less explicitly) on relations of class and gender. Both levels of that hierarchy are used to perpetuate the particular vision of the writer, whose supreme skill is in knowing how to mold conventions to ensure an artwork’s easy assimilation and mass distribution. The knowing critic does nothing to challenge those conventions; he simply comes to understand them at a metatextual remove.

Hutcheon uses the term “knowing audiences” in order to avoid “descriptors of learned or competent” (120). She argues that “the term ‘knowing’ suggests being savvy and street-smart, as well as knowledgeable, and undercuts some of the elitist terms in favor of a more democratizing

kind of straightforward awareness of [an] adaptation's enriching doubleness" (120). Nevertheless, it is telling that the transformation from ignorance to knowledge in her account seems necessarily to involve some kind of formalizing or policing of the boundaries of reader response.

"Audiences," she argues, "need to learn—that is, to be taught—how to be knowing audiences in terms of medium" (125). But apart from briefly noting that this process can be "conservative" (125), Hutcheon neglects to mention that the act of treating readers, in Nabokov's terms, as "schoolchildren" (187), and thereby gradually transforming them into "knowing audiences" (120), necessarily socializes them into particular symbolic structures and "ways of seeing" (to borrow from Berger again) that, as demonstrated above, mask certain gender hierarchies and ideologies. The writer in "The Passenger" has already determined in advance what it means to be ignorant or knowing; the schoolchild becomes a critic when he or she learns to identify the difference. The point, though, is that the writer is only able to produce a work of art that appears "*perfectly natural* in terms of its own *conventions*" by schooling the audience in the accepted formulae applicable to certain genres and media (183). Moreover, the writer, as mentioned, is endowed with a particularly authoritarian, god-like power of policing that process: one must "confess" one's ignorance if, like a servant maid, one does not recognize the formulae; one escapes confession only if, like a critic, one is able to identify the agency behind the design. At that point, one is able to share with the writer in the joke that takes place at the servant maids' expense.

Given this hierarchy of reception, it is notable that a similar structure can be identified in Nabokov's writing about the intersection between adaptation and evolution in nature and art. In the next section, therefore, I trace how the representation of evolution in Nabokov's explicitly

scientifically engaged works is also modeled on this same structure of a joke concerning the agency of artistic design.

“The Sly Conspiracy”: On Nature’s Stage

Throughout many of his novels, Nabokov explores the crossovers between science and art and the intersection between aesthetic design and evolution. This exploration can seem to range from the highly serious to the bathetically comic. An example of the latter can be found in *Glory*, originally written in 1932, in which Nabokov stages an explicit encounter between the cinema and a character named Darwin, who comments on a film featuring a *femme fatale*:

‘Funny thing,’ said Darwin one night, as he and Martin came out of a small Cambridge cinema, ‘it’s unquestionably poor, vulgar, and rather implausible, and yet there is something exciting about all that flying foam, the *femme fatale* on the yacht, the ruined and ragged he-man swallowing his own tears.’ (68)

Of course, this neat little vignette should immediately alert us to the playfulness involved in many of Nabokov’s writings on science and art. It would, of course, be pointless to take anything that the character named Darwin says about cinema here as connected in any specific way with either the thoughts of the historical Darwin or the thoughts of the historical Nabokov. In his commentary on the English translation of *Glory*, Nabokov explicitly states that the character of “Darwin is totally invented” for the purposes of the novel (ix). That said, even comments such as these must be taken with a pinch of salt, since Nabokov knows that any post-nineteenth-century reader cannot help but make an association, however provisional, between a character named Darwin in a fictional text and the historical figure whom the proper noun inevitably connotes. The claim that “Darwin is totally invented,” in other words, is both absolutely true

within the context of *Glory* and absolutely not true within the wider context of that work's production and reception. At the very least, we can say that in moments like these, Nabokov is playing a certain game with his readers, one which reminds us of the traps set by the writer for the critic in "The Passenger." The reader may wonder when they will be asked to "confess" to the crime of having recalled the forename Charles when encountering the single name Darwin.

Nabokov makes it difficult for his readers to learn how to play these games by deploying his own prodigious scientific knowledge and skill as a natural philosopher. There is no doubt that Nabokov was a talented lepidopterologist and a gifted evolutionary thinker. Beyond the references to butterflies that abound throughout his novels, he wrote four scientific papers on butterflies, papers that Brian Boyd argues "took him to the frontiers of lepidopterological knowledge" for his time ("Nabokov, Literature, Lepidoptera" 11).⁶⁶ Moreover, recent biologists have praised his creative approach to the taxonomy of South American Blues, arguing that his theories went on to "prove seminal even if the seeds took another half-century to sprout" (11). As Boyd points out, Nabokov's scientific work has been valued by recent biologists and evolutionary theorists such as Zsolt Balint, Kurt Johnson, Stephen Coates, Dieter Zimmer, and more.⁶⁷ Thus, even though we might be aware, when reading Nabokov's fiction, that he is making use of his scientific knowledge to play textual or fictional games, it cannot be denied that his status as a scientist gives both him and his narrators a certain authority on the topic (an authority that is arguably even more apparent now than it was to Nabokov's contemporary readers). This

⁶⁶ According to Boyd, Nabokov's four major papers on butterflies are: "Nearctic Forms of *Lycaeides Hüb[ner]*," a paper on *Lycaeides*, "Notes on Neotropical Plebejinae," a monograph on Nearctic *Lycaeides* ("Nabokov, Literature and Lepidoptera," 9-10).

⁶⁷ Certain of these lepidopterologists recently tested some of Nabokov's hypotheses and confirmed many of his predictions. For an account, see Roger Vila et al. (2011).

authority, in turn, necessarily influences the reception of his fictional works and makes it even more difficult to know how to respond to the extended scientific discussions they contain.

Nowhere is this more evident than in *The Gift*, whose narrator-protagonist, Fyodor Gordunov-Cherdyntsev, is an aspiring author and the son of a renowned lepidopterologist, Konstantin Krillovich. Krillovich, who is presumed dead before the novel begins and functions as an absent presence within the narrative, is described by his son as occupying “one of the first places in the study of the Russo-Asiatic fauna” (102). Krillovich’s copious scientific writings, which far exceed Fyodor’s meagre output of a slender book of poems, include the eight-volume *Lepidoptera Asiatica*, the first four volumes of *The Butterflies and Moths of the Russian Empire*, and the seven-volume *Travels of a Naturalist*. All of these works, Fyodor notes, with equal measures of filial admiration, jealousy, and probably hyperbole, “were unanimously recognized as classics” (102).

Fyodor comments on his father’s theories of evolution within *The Gift*, summarizing them after reading an account of his father’s biography in an encyclopedia. While there is undoubtedly a degree of poetic license taken in Fyodor’s descriptions, it is undeniable that the themes of Konstantin Krillovich’s evolutionism and lepidopterology recall elements of Nabokov’s other writings about those topics throughout his scientific and fictional works. As the following summary makes clear, the theory focuses on ideas of spectatorship, knowing audiences, and creative mimicry in nature. Fyodor explicitly refers to the last of these as a kind of joke (in his terms, “artistic wit”) that the observant audience eventually becomes aware of, recalling the terms in which the critic identified the cunning artistry of the writer in “The Passenger.” Fyodor recalls how his father introduced him to the delights of studying and appreciating butterflies:

He told me about the odors of butterflies—musk and vanilla; about the voices of butterflies; about the piercing sound given out by the monstrous caterpillar of a Malayan hawkmoth, an improvement on the mouselike squeak of our Death's Head moth; about the small resonant tympanum of certain tiger moths; about the cunning butterfly in the Brazilian forest which imitates the whirl of a local bird. He told me about the incredible artistic wit of mimetic disguise, which was not explainable by the struggle for existence (the rough haste of evolution's unskilled forces), was too refined for the mere deceiving of accidental predators, feathered, scaled and otherwise (not very fastidious, but then not too fond of butterflies), and seemed to have been invented by some waggish artist precisely for the intelligent eyes of man (a hypothesis that may lead far an evolutionist who observes apes feeding on butterflies). (110)

The account clearly demonstrates the importance of the ideas of "illusion," "mimicry," and "artistic wit" in Krilovich's account of nature. In evolutionary terms, Krilovich seems to have actively contradicted Darwin's theory of natural selection on non-utilitarian grounds. The art of nature is "not explainable by the struggle for existence (the rough haste of evolution's unskilled forces)." The theory, moreover, is reminiscent of the account that the narrator of *Speak Memory* will later give in describing the "non-utilitarian delights" of mimicry in nature (125). In the chapter on lepidopterology contained within *Speak Memory*, the narrator claims that the elaborate designs of nature and evolution demonstrate a "mimetic subtlety, exuberance, and luxury far in excess of a predator's power of appreciation" (125).⁶⁸

⁶⁸ Nabokov makes this argument in explicitly anti-Darwinian terms: "When a butterfly has to look like a leaf, not only are all the details of a leaf beautifully rendered but markings mimicking grub-bored holes are generously thrown in. 'Natural selection,' in the Darwinian sense, could not explain the miraculous coincidence of imitative aspect and imitative behavior, nor could one appeal to the theory of 'the struggle for life' when a protective device was carried to a point of mimetic subtlety, exuberance, and luxury far in

However, it is important to stress again that *The Gift* does not offer us solid ground on which to speculate over Nabokov's (or even Fyodor's or Krillovich's) theory of evolution. Stephen H. Blackwell argues that the engagement with evolutionary theory in *The Gift* may simply have a functional (rather than an actively scientific) role. It may not be intended to make a genuine critical intervention into biological debates and may simply be signaling to its readers that its protagonists form part of a particular intellectual milieu: "The presence, and rejection, of Darwin's theory as a full explanation of species variety serves more as a sign of the novel's scientific engagement than as a *profession de foie* of its author" ("Poetics" 248). Similarly, James Mallet argues that perhaps the novel's scientism is entirely circumscribed within its own fictional universe. Nabokov may very well have been "enunciating controversial views that might have been true in an alternative world, rather than always stating what he actually believed about nature" (238). Thus, what looks like a kind of outward-facing engagement with scientific matters may well in fact be an inward-facing, aesthetic project, circumscribed by the fictional boundaries of the universe of the novel. Darwin may have been "totally invented" in *The Gift* as much as in *Glory*. Nabokov seems to have believed in quite an important way that, as he put it in his *Lectures on Literature*, "the work of art is invariably the creation of a new world," and so we could do worse than to assume that Fyodor's and Konstantin's theories refer to their own world, and not the so-called real world that exists beyond the text (1). Nabokov himself emphasizes this in his commentary on *The Gift*, issuing caution over any kind of easy biographical mapping between himself and Fyodor:

I had been living in Berlin since 1922, thus synchronously with the young man of the book; but neither this fact, nor my sharing some of his interests, such as literature and

excess of a predator's power of appreciation" (*Speak Memory* 125).

lepidoptera, should make one say ‘aha’ and identify the designer with the design. I am not, and never was, Fyodor Gordunov-Cherdyntsev; my father is not the explorer of Central Asia that I still may become one day; I never wooed Zina Mertz, and never worried about the poet Koncheyev or any other writer. (i)

Of course, Nabokov’s sense of irony has the final laugh here, and there is no reason to assume that we should be any more trusting of this paratext than we should be of the text of the novel itself. Indeed, Nabokov’s claim that he never worried about “any other writer” must surely invite skepticism, particularly given that in the previous sentence he lists one of his “interests” as “literature.” Ultimately, in Nabokov’s fiction, author and characters clearly blur together at certain points and distinguish themselves at others. What this demonstrates, though, is that when it comes to Nabokov’s determinedly heteroglossic writing, and the many fictional, scientific, and historical personae he assumed, assessing where fiction ends and where facts, life, nature, or theory begin, becomes a largely impossible task. It suggests that it would be as problematic to hive off Nabokov’s evolutionary writings into an entirely fictional universe as it would be to extract them from that fictional universe and deal with them simply as statements about the so-called real or natural world. Within the context of this chapter, therefore, the point of exploring the scientific commentaries found in Nabokov’s novels is not to try and establish the so-called truth of what Nabokov actually thought about evolution; rather, the point is to notice the structural parallels between his representation of the process of artistic adaptation and biological evolution across his fictional works.

Those parallels are clear from the fact that Fyodor’s descriptions of evolution and lepidoptera in *The Gift* emphasize not just the vivid spectacle of nature’s artistry but also the central importance of a spectator, man, who is capable of recognizing the agency of the artist at

work behind the design. In a paradigm that is clearly reminiscent of the work of the critic in “The Passenger,” there is an evolutionary hierarchy of reception described in *The Gift* which, significantly, is structured around the notion of *taste*. For Krillovich, the “artistic wit of mimetic disguise... seemed to have been invented by some waggish artist precisely for the intelligent eyes of man (a hypothesis that may lead far an evolutionist who observes apes feeding on butterflies)” (110). That hypothesis, one can infer, is that whereas apes consume butterflies as food (to satisfy a utilitarian need), men consume butterflies as art (to satisfy luxurious pleasures). That, presumably, is why lepidopterologists create boxes of pinned butterflies and intricate plates in biology textbooks, a process that Fyodor describes in great detail in *The Gift*, but one which clearly serves no practical or material purpose. What this suggests, though, is that there is a clear overlap between the evolution of the appreciation of nature and the appreciation of art that is shared between *The Gift* and “The Passenger.” Just as the critic models the process of appreciating the careful design of the writer, so too do Krillovich and Fyodor model the process of appreciating the careful design of nature. It is, moreover, this process that marks the distinction between animal and human, ape and man: man possesses “intelligent eyes,” a critical faculty (110).

Of course, the term “man” is often used in scientific texts as a catch-all for “human,” but I will return below to the significance of the fact that it is only the “intelligent eyes of *man*” that are referenced here (110). For now, it is enough to recognize that in the structural comparison with “The Passenger,” if the intelligence of man is aligned with the discerning faculty of the critic, the consumptive habits of the apes are necessarily aligned with the consumptive habits of the “servant maids”; again, what distinguishes between the categories of different beings is the faculty of *taste*. Who knows what to do and what not to do when encountering a butterfly? Who

reveals their animality by eating it? Who, by contrast, demonstrates a sophistication “far in excess of a predator’s power of appreciation” (*Speak Memory* 125)? In these questions, we can already sense the outlines of the elite male exceptionalism that underwrites the idealist model of evolution described by Fyodor. I will return to this in a moment, but I would like first to examine Krillovich’s philosophy of nature in detail.

While Krillovich’s evolutionary theories are only passed over superficially within *The Gift*, it is notable that Nabokov did sketch out a rather elaborate and extended version of them in a text known as “Father’s Butterflies.” This text was not originally published as part of *The Gift*. It was later released as part of a collection of Nabokov’s writings on lepidopterology and evolution (*Nabokov’s Butterflies*, 2000). It is not clear why Nabokov chose not to include it when publishing *The Gift*. Brian Boyd speculates that it may have been because “he had misgivings about mixing hard science with the kind of free speculation he had allowed himself from behind the mask of the Gordunovs, father and son” (“Nabokov, Lepidoptera, Literature,” 8). Again, this alerts us to the fact that several caveats must be made in relation to any reading that we might generate from “Father’s Butterflies.” Not only was it not published by Nabokov, but the text itself is presented through several mediated layers of reception, adaptation, and alteration. The text is narrated, like *The Gift*, from Fyodor’s perspective. But Fyodor himself admits to being “insufficiently versed in such matters as, for instance, paleontology or genetics” (216). He suggests that he is not qualified to penetrate the “inscrutable dust and fog” that lie over his deceased father’s evolutionary theories (216). Moreover, Fyodor notes that, in the fictional world, the dissemination of those theories was decidedly problematic. They “found no followers in Russia” and “penetrated abroad rather haphazardly and in incomplete, muddled form” (213). As a result, Fyodor’s account is itself based on a re-versioning “back into Russian from the scraps of

English translation” (*The Gift* 110). Indeed, as Stephen H. Blackwell argues, it may well be that the emphasis placed by Fyodor on artistry, mimicry, and wit in his account of Krillovich’s theories is merely part of “the son’s poetic interpolation” of his father’s scientific account (*Quill* 21).

Nevertheless, for the purposes of our discussion, it is telling that the account of evolution that Fyodor provides actively develops the themes of spectacle and spectatorship, as well as audience and response, that I have been tracing throughout this chapter. Fyodor’s account of Krillovich’s theory of evolution describes nature explicitly in terms of a stage set. He invites us to “imagine a certain remote time on earth... long before the dawn of mankind” (220). In this distant past, he remarks, “the concept of species (or genus) was as foreign to nature as it is to the infancy of a human or humanity” (220). And yet, Fyodor claims, even in this time of taxonomical ignorance:

nature had already erected stage sets in expectation of future applause, the chrysalis of the *Plum Thecla* was *already* made up to look like bird droppings, and the whole play, performed nowadays with such subtle perfection, had been readied for production, and only awaited the sitting down of the foreseen and inevitable spectator, our intelligence of today (for tomorrow’s, a new show was in preparation). (220)

The reference here is to the chrysalis of the Black Hairstreak butterfly, which mimics bird droppings. Presumably, one of the “reasons” why the chrysalis does this is to dissuade birds from eating it. For Fyodor, though, the quality of the scatological joke means that its artistic significance far exceeds this purely utilitarian survival strategy. Instead, Fyodor argues that it forms part of an evolutionary performance that has been prepared in advance for an audience that will one day come to appreciate it. Fyodor develops this idea at length, going so far as to claim

that, if no creature had attained the intellectual acumen necessary to perceive such jokes, then paradoxically the whole exercise of evolution would have been entirely pointless:

Certain whims of nature can be, if not appreciated, at least merely noticed by a brain that has developed in a related manner, and the sense of these whims can only be that—like a code or a family joke—they are accessible only to the illuminated, i.e., human mind, and have no other mission than to give it pleasure—we are speaking of the fantastic refinement of ‘protective mimicry,’ which, in a world lacking an appointed observer endowed with artistic sensitivity, imagination, and humor, would simply be useless (lost upon the world), like a small volume of Shakespeare lying open in the dust of a boundless desert. This fact, even taken alone, implies a silent, subtle, charmingly sly conspiracy between nature and the one alone who can understand, who alone has at last achieved this comprehension—a spiritual alliance conducted above and beyond all the seething and stirring, the darkness of roaming reveilles, behind the back of the world’s organic life. (219)

According to Fyodor, therefore, in order to make “sense,” and not simply to seem as useless as a Shakespeare play strewn across a desert, evolution demanded recognition. The world may have always been a stage, but what it required was an audience. The details of this theory bear clear similarities with the discussion of “knowing audiences” in relation to “The Passenger” (Hutcheon, *Theory* 120). Here evolution, adapted into a carefully crafted stage play, provides “pleasure” for the audience that is able to recognize its tropes and techniques. Moreover, the process of becoming knowledgeable involves recognizing an artistry that nature has laid out in advance for the discerning human mind. The “charmingly sly conspiracy” that is established here between “nature and the one alone who can understand” (219) is the same as was established in

“The Passenger” between the artist and the critic. As it did in “The Passenger,” this creates a hierarchy of reception, placing the knowing spectator on the same intellectual level as nature itself. Rather than passively consuming nature or art (like an ape or a servant maid), “the one alone who can understand” attains a kind of conscious agency (even, we will see below, a freedom) that matches the agency of the sophisticated author who came up with nature’s design tricks in the first place (219).

It is perhaps unsurprising that this theory, despite its ambiguous status in the frame of Nabokov’s text, has posed several problems for readers who have explored the overlaps between Nabokov’s fictional and scientific works. Indeed, not only is the theory explicitly anti-Darwinian, but it even borders on the heresies of creationism and intelligent design. One response to this has been to propose that the theory really has nothing to do with science or evolution at all; it is “merely” a theory of art. In their pioneering study of Nabokovian Science, *Nabokov’s Blues* (1999), for example, Kurt Johnson and Stephen Coates explain away Nabokov’s supposedly unorthodox evolutionary theory by claiming that it is in fact an expression of his aesthetic and psychological sensibilities, rather than a part of his scientific project. Separating science from art, they note that it was only in his art and not in his scientific papers that Nabokov “felt free to express his awe about mimicry in terms that had more to do with human feelings and natural wonder than with laboratory science” (329). Similarly, James Mallett argues that it is largely because Nabokov approaches nature from the perspective of artistic design that he misses the beauty of its utilitarian solutions. “In my view,” Mallett claims, “Nabokov did get mimicry wrong, but he certainly did not deny the importance of natural selection in general, and most of his attacks on mimicry were in any case literary flourishes not to be taken too seriously” (237). Thus, Mallett excuses Nabokov’s scientific theory on account of his artistic vagaries. The

vocabulary seems important: Nabokov produces “flourishes” that should not be taken “seriously.” In art all is frivolity, luxury, excess, and ornament; science, by contrast, deals only with serious (and implicitly, utilitarian) truths that fall under the umbrella of “natural selection in general.” When Nabokov expresses his glee at the “non-utilitarian delights” of nature, therefore, that is only because he is not thinking in the terms of a serious scientist. Mallet argues that it was Nabokov’s error to see artistry as an explanation for the strange mysteries of mimicry, when in fact, Mallet claims, such an explanation “is most convincingly achieved in the mathematical language of mechanics and dynamics, and data are best analyzed by means of reference to some statistical model, rather than solely through verbal discussion” (236). It is, of course, far beyond the purview of this dissertation to assess what the respective goals of art or science should be, or how the data they gather can “best” be analyzed, but there does seem to be a considerable amount of disciplinary anxiety in this assessment, not to mention an impulsive need to sweep away what Roland Barthes identified as “the linguistic status of science,” mentioned in the introduction (“Science,” 1989, 10). Moreover, as I will argue momentarily, biological “data” are always generated and interpreted within particular ideological frameworks; those frameworks cannot simply be magicked away by an appeal to empirical accuracy.

A more nuanced approach to Nabokov’s scientifically inflected writings can be found in the works of Stephen H. Blackwell and Dana Dragunoiu (2011). Blackwell and Dragunoiu argue separately and persuasively that the views of Fyodor or Konstantin or Nabokov concerning evolution and natural selection represented in *The Gift* are more a reaction to the materialist philosophies of Russian revolutionaries and their connections with a kind of vulgarized Marxist Darwinism than an attempt to offer a sustained critique of the theories of natural selection and the struggle for life. As Dragunoiu puts it, “Nabokov’s anti-positivist and anti-utilitarian opposition

to Darwinism allied him with an influential group of Russian neo-idealist philosophers who argued that positivist models of reality and utilitarian ethics failed to provide a philosophical basis for a liberal or progressive politics.” (40) Similarly, Blackwell claims that the reason why Fyodor’s or Konstantin’s “speciation theory is uncompromisingly idealistic” is so that it can challenge the materialist philosophies of Nikolai Chernyshevsky, the nineteenth-century author of the political tract, *What Is to Be Done?*, whose fictional biography is penned by Fyodor in the course of *The Gift*, making up the fourth chapter of the novel (“Poetics” 244). “If Nabokov’s empirical science can trump Chernyshevsky’s idealist materialism,” Blackwell claims, “then he has defeated the radical thinker on his own turf, and he can make a claim for the complete removal of (Marxist) materialism from the field of intellectual debate” (“Poetics” 245). As Blackwell argues elsewhere, the point is that:

Natural selection as Nabokov understood it clashed with his liberal-idealist leanings and his strong aversion to all material-based explanations of phenomena, an aversion surely deepened by materialism’s victory in the Bolshevik revolution. Whether or not natural selection is a purely materialist theory, Nabokov clearly saw the inevitability of its exploitation by materialist thinkers and its incorporation into ‘dialectical materialism.’
(*Quill* 30)

Of course, while this analysis largely substitutes Nabokov’s own personal history and political beliefs for the evolutionary theories of Fyodor and Konstantin, it does have the benefit of being able to connect particular scientific discourses with particular ideologies. Blackwell and Dragoniou consider Nabokov’s writings about evolution to be motivated as much by political and economic theory as by so-called objective science. Blackwell’s point is borne out by the rather Hegelian terms in which Nabokov has Fyodor describe the progress of evolution. In the

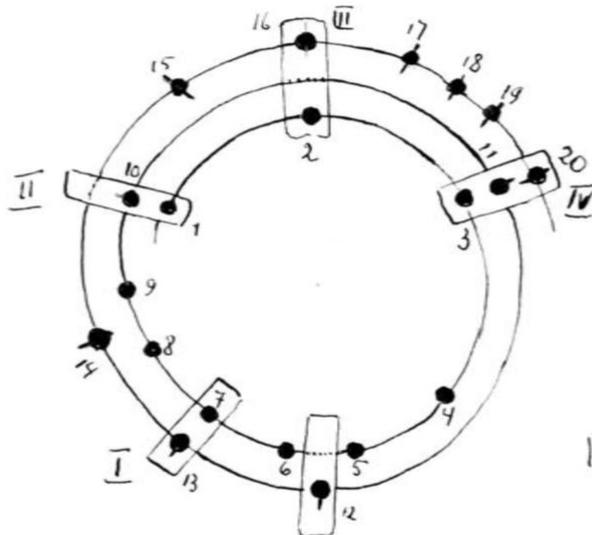
biography of Chernyshevsky found in *The Gift*, Fyodor actively contrasts a fictionalized version of Hegel's dialectical evolution of consciousness with a fictionalized version of Ludwig Feuerbach's anthropological materialism:

In those days Andrey Ivanovich Feuerbach was preferred to Egor Fyodorovich Hegel. *Homo feuerbachi* is a cogitating muscle. Andrey Ivanovich found that man differs from the ape only in this point of view; he could hardly, however, have studied the apes... Similarly, Chernyshevsky explained: 'We see a tree; another man looks at the same object. We see by reflection in his eyes that his image of the tree looks exactly the same as our tree. Thus, we all see objects as they really exist.' All this wild rubbish has its own private hilarious twist: the 'materialists'' constant appeal to trees is especially amusing because they are all so badly acquainted with nature, particularly with trees... Look what a terrible abstraction resulted, in the final analysis, from 'materialism'! (243)

Thus, Fyodor actively contrasts a Slavicized Hegel (whose first name, George, has become the Russian Egor, and whose patronymic, Fyodorovich, aligns him with Fyodor) with the "wild rubbish" of the materialists. According to Fyodor, Hegel had fallen out of favor among those who think that man can be defined solely in terms of his anatomy: "*Homo feuerbachi* is a cogitating muscle" (243). The theory of evolution outlined by Fyodor and Krillovich, by contrast, explicitly aligns itself with Hegel's theory of consciousness by emphasizing the importance of cognition (and therefore idealism) in the process of recognizing the artistry of nature. As Blackwell points out, this Hegelian emphasis seems to link Fyodor's speculative evolutionary theory with Nabokov's own scientific writings, in which he tried to identify patterns of "spiral speciation" (Figure 1). In *Speak Memory*, Nabokov explicitly discusses Hegelian syntheses in terms of spirals:

The spiral is a spiritualized circle. In the spiral form, the circle, uncoiled, unwound, has ceased to be vicious; it has been set free. I thought this up as a schoolboy, and I also discovered that Hegel's triadic series (so popular in old Russia) expressed merely the essential spirality of all things in their relation to time. Twirl follows twirl, and every synthesis is the thesis of the next series... A colored spiral in a small ball of glass, this is how I see my own life. The twenty years in my native Russia (1899-1919) take care of the thetic arc. Twenty-one years of voluntary exile in England, Germany and France (1919-1940) supply the obvious antithesis. The period spent in my adopted country (1940-1960) forms a synthesis—and a new thesis. (275-6)

Spiral speciation
 showing how two or more organisms may be at the same time "distinct" and "co-specific"



Twenty intergrading races gradually producing three specific unities
 (1-9, 10-14, 15-20) i.e. not interbreeding when occurring together in
 localities I, II, III (two species) and IV (three species)

Figure 1. "Spiral Speciation," Vladimir Nabokov, "showing how two or more organisms may be at the same time 'distinct' and 'co-specific'" (Blackwell, *Quill* 36).

Nabokov's claim that the "spiral is a spiritualized circle," combined with his explorations of "spiral speciation" and Fyodor's "spirit of natural history" suggests that a Hegelian model underlies Fyodor's evolutionary theory as much as it underlies Nabokov's (rather convenient and retroactive) account of his own life. Hegel would, of course, likely have been a suggestive alternative to Nabokov in his search for a non-Marxist account of natural history. Moreover, Hegel in *The Phenomenology of Spirit* (1807) and the *Introduction to the Philosophy of History* (1837) draws a parallel between the development of individual consciousness and the progress of

world history or spirit that is echoed in Fyodor's account of evolution in "Father's Butterflies." Fyodor links the development of a child's knowledge to the gradual development of knowledge over the course of evolutionary time. In the early stages of natural history, Fyodor claims, thought resembled that of a child, for whom the categories of the natural world have a tendency to blur into one:

A three-year-old child thinks a cow is the wife of a stallion, and a dog the husband of a cat. Even the Stagirite, although he could distinguish between a 'cabbage butterfly' and a moth that flew flamewards (that, apparently, was the extent of Aristotle's lepidopterological erudition), understood less about this distinction than a child or a layman today. (220)

From this state of ignorance, Fyodor claims, by way of what he calls the "principles of natural classification," thought evolves towards the point at which an intelligent being can share in the luxurious excesses of nature's mimetic stage show (216).

In the course of life we learn, among other things, the concept of 'species,' unknown to the ancestors of our culture. Yet not only is the history of mankind parodied by the developmental history of the writer of these and other lines, but the development of human ratiocination, in both the individual and historic senses, is extraordinarily linked to nature, the spirit of nature considered as the aggregate of all its manifestations, and all the modifications of them conditioned by time. (221)

Evolution, then, tends towards a greater understanding of nature. In the course of deep time, so-called higher levels of consciousness gradually perceive more variations in the creative overflow of evolution, so that nature's infinite variety becomes more easily recognized. Living beings, in other words, particularly insofar as they become human, evolve into "knowing

audiences,” capable of understanding the apparently natural distinctions that exist in the world (*Theory* 120). This process achieves its apotheosis in mankind’s recognition of the performance of protective mimicry, particularly insofar as it showcases itself in the humorous “comedy” of the Black Hairstreak butterfly, mentioned above. While this might seem like a strangely abstract account of evolution, Blackwell suggests a practical example of it in Nabokov’s own work as a natural historian. He claims that, as a result of his lepidopterological research, Nabokov was able to read the world differently to anyone else; he distinguished between butterflies that had previously been considered identical: “Some of these [butterflies] he was the first to name—for example *Plebejus idas sublivens*—which is also like saying that he was the first human, ever, to see these butterflies distinctly” (*Quill* 25). Were we to take this as a real-life “example” of Fyodor’s and Krillovich’s theories, therefore, we might say that in the Nabokovian and Hegelian model of natural history, thought at this juncture of taxonomic progress spiraled outwards or evolved.

However, if this Hegelian model does indeed underlie Nabokov’s or Fyodor’s account of the process of “natural classification,” then we must also recall that such processes of taxonomization are explicitly bound up with particular discourses of power and ways of seeing (“Father’s Butterflies” 213). Indeed, Fyodor’s claim that “natural classification” helps to shore up certain boundaries that were previously thought to be fluid explicitly highlights the involvement of a particular regime of signs in the organization of consciousness. Fyodor expresses his relief that the enlightened spectator of nature who is alive today no longer thinks that “a cow is the wife of a stallion, and a dog the husband of a cat” (220). But in so doing, Fyodor clearly betrays his anxiety over the proper categorization of animals, demonstrating a need to organize them according to a bizarrely Biblical pair system that relies on conventional humanist kin structures.

Indeed, if the progress of so-called “*natural* classification” is really a project of separating nature into binaries such as these, it is telling that it never puts that binarism into question (even though that would surely be one of the first things to go following any attentive observation of nature). In the next section, therefore, I discuss how the philosophical and biological theory of Simone de Beauvoir highlights blind spots such as these within the masculinist model of Hegelian history to which Fyodor’s evolutionary theory subscribes. Subsequently, I demonstrate how the relations of power at work in the supposedly neutral stage set described by Fyodor also recur in Nabokov’s descriptions of maximally agential authorship, suggesting an important network of connections between the idealist evolutionism he describes in his novels and his conception of artistic creation, which he himself characterizes as a “system of total tyranny” (*Lolita: A Screenplay*, 9). This will bring me, in the final analysis, to a comparison of the staging of idealist evolution with the staging of masculine power in his most ethically fraught novel: *Lolita*.

“She Had Been Safely Solipsized”: Notes on Man’s Grasp of the World

In *The Second Sex* (1949), Simone de Beauvoir explicitly critiqued the masculinism of the Hegelian dialectic. In her account of the history of western philosophies of nature, Beauvoir drew attention to Hegel, who gave a taxonomical account of the development of the “genus,” which clearly seems to inform Nabokov’s descriptions of Krillovich’s theory of evolution by means of “natural classification.” Hegel, Beauvoir writes, attempted to give a “logical” reason for sexual differentiation in nature:

According to [Hegel], sexuality is the mediation by which the subject concretely achieves itself as a genus. ‘The genus is therefore present in the individual as a straining against the inadequacy of its single actuality, as the urge to obtain its self-feeling in the other of

its genus, to integrate itself through union with it and through this mediation to close the genus with itself and bring it into existence—*copulation*.’ (23)⁶⁹

Hegel argues, in other words, that by mating with a sexed other (or, more accurately, by fertilizing a sexed other), an individual unites with the rest of its genus, realizes the idealist category of that genus, and biologically extends it through reproduction. This study of the development of the genus seems to inform Fyodor’s claim that, in earlier periods of history, “the concept of species (or genus) was as foreign to nature as it is to the infancy of a human or humanity” (“Father’s Butterflies” 220). Hegel, like Fyodor, sees physical relationships between individuals leading to the development of more refined forms of knowledge, eventually allowing for the individual to move beyond itself, achieving itself in greater categories of abstraction. Moreover, Hegel’s concept of the individual “straining against the inadequacy of its single actuality” (*Philosophy*, part 3, sec. 369, p. 313) also recalls the philosophical theories that I outlined in Chapter One in relation to *Adaptation*, theories which claimed that the so-called “goal of nature” was for the individual to come out of itself and achieve fulfilment through copulation and procreation (Rousseau, *Émile* 38). The difference here is that, for Hegel and Fyodor, this process also leads to the creation of categories within the world: an unfolding of speciation or taxonomy.

According to Beauvoir, while Hegel’s account is “not convincing” (not scientifically true or accurate, we might say), it is interesting insofar as it demonstrates how men produce evolutionary theories or natural philosophies in the service of establishing specific distinctions between genders and reifying certain (heterosexist) values. Beauvoir notes that Hegel’s theory does not necessitate sexual differentiation of any kind:

⁶⁹ Beauvoir quotes Hegel, *Philosophy of Nature* (part 3, sec. 369, p. 313).

The surpassing of the individual towards the species, by which individual and species accomplish themselves in their own truth, could occur without the third element, by the relation of genitor to child: reproduction could be asexual. Or the relation to each other could be that of two of the same kind, with differentiation occurring in the singularity of individuals of the same type, as in hermaphroditic species. Hegel's description brings out a very important significance of sexuality: but he always makes the same error of equating significance with reason. *It is through sexual activity that men define the sexes and their relations, just as they create the meaning and value of all the functions they accomplish:* but sexual activity is not necessarily implied in the human being's nature. (24; my emphasis)

Thus, it is the perception of sexual difference and the idea of what later theorists such as Adrienne Rich would call "compulsory heterosexuality" that allows men to "create the meaning and value of all the functions they accomplish." This calls attention to a power dynamic at work in what Fyodor and Krillovich present as the supposedly neutral theory of "natural classification." Indeed, while that theory is not explicitly gendered, we have already seen that it depends on a certain set of values concerning aesthetic appreciation and taste. According to Beauvoir, those values have always functioned to ensure the exclusion and subjugation of women, who have never even been granted the opportunity to stake a claim for subjectivity within the structure of the Hegelian dialectic:

Certain passages where Hegel's dialectic describes the relationship of master to slave would apply far better to the relationship of man to woman. The Master's privilege, he states, arises from the affirmation of Spirit over Life in the fact of risking his life: but in fact the vanquished slave has experienced the same risk, whereas woman is originally an

existent who gives *Life* and does not risk *her* life; there has never been combat between the male and her; Hegel's definition applies singularly to her. 'The other [consciousness] is the dependent consciousness for which essential reality is animal life, that is, life given by another entity.' (76-7)

Judith Butler has outlined the radical nature of Beauvoir's claim. Butler notes that "although Beauvoir is often understood to be calling for the right of women, in effect, to become existential subjects and, hence, for inclusion within the terms of an abstract universality" (what we might refer to in Krillovich's or Hegel's terms as inclusion within the "genus"), Beauvoir's "position also implies a fundamental critique of the very disembodiment of the masculine epistemological subject" (*Gender Trouble* 16). It is the masculine subject which, in the idealist tradition since the *cogito*, has been afforded the privilege of disembodied reflection and recognition. Thus, while Fyodor in *The Gift* critiques the materialism of Feuerbach for reducing man to a "cogitating muscle" (243), Beauvoir and Butler point out that it is the privilege of men to associate themselves with the mind rather than the body in the first place: "This association of the body with the female works along a magical relation of reciprocity whereby the female sex becomes restricted to its body, and the male body, fully disavowed, becomes, paradoxically, the incorporeal instrument of an ostensibly radical freedom" (*Gender Trouble* 16). The male transcends its body, "achieves itself" in the species or genus, thereby guaranteeing for itself the form of freedom that is proper to the "Master" in Hegel's dialectic, whose privilege it is to insist on the value of "Spirit over Life" (Beauvoir 76). Indeed, we can recall in this regard how the critic and the writer of "The Passenger" seem to occupy a rarefied plane over and above the bare reality of the female goddess of Life. That "goddess," who bears all the hallmarks of the "feminine mystique" criticized by Beauvoir, "does not risk *her* life" in an intellectual struggle for

recognition; that struggle is reserved for two men: the one who lays narratological traps and the one who strives to avoid them. In molding the embodied creations of the goddess, moreover, the writer clearly demonstrates his “affirmation of Spirit over Life” (76).

Beauvoir’s critique seems precisely relevant to our reading of Nabokov for the way in which it undermines the very system of values on which the Hegelian evolutionism of “Father’s Butterflies” is based. Tellingly, that system is coordinated around ideas of “grasping” the world, which Beauvoir understands in both a physical and an intellectual sense (47). In a physical sense, Beauvoir argues that the emphasis placed on the utilitarian “struggle for existence”—the supposed necessity of competition—depends on aligning the perpetuation of the species with the assertion of male identity and empowerment over females: “for birds and above all for mammals, the male imposes himself on her; very often she submits to him with indifference or even resists him. Whether she is provocative or consensual, it is he in any case who *takes* her [*la prend*]: she is *taken* [*prise*]” (35). Beauvoir writes:

The activity deployed in mating and in coitus itself, the dominating affirmation of [the male’s] power over the female—all of this contributes to positing the individual as such at the moment he surpasses himself. Hegel is right to see the subjective element in the male while the female remains enclosed in the species. Subjectivity and separateness immediately mean conflict. Aggressiveness is one of the characteristics of the male in heat. It cannot be explained by competition, since there are about the same number of females as males [Beauvoir is talking about human beings at this point]; it is rather competition that is explained by this combative will. It is as if before procreating, the male, claiming as his very own the act that perpetuates the species, confirms the reality of his individuality in his fight against his fellow creatures. (37)

This assertion of individuality then becomes the basis upon which men assert the material inferiority and “fixed destiny” of women. We can recall, in this regard, Darwin’s explanation of why “man has ultimately become superior to woman” (*Descent* 631), mentioned in the introduction to this dissertation, as well as the Freudian claim that “anatomy is destiny” (“Dissolution” 665). Beauvoir writes that “because the body is the instrument of our hold on the world, the world appears different to us depending on how it is *grasped*” (45). As a result, Beauvoir argues, woman’s “grasp of the world is... more limited; she has less firmness and perseverance in projects that she is also less able to carry out. This means that her individual life is not as rich as man’s” (47). The point, for Beauvoir, though, is that this is only because man has already given a meaning and an importance to the idea of *grasping* as a world-historical value. “If he did not want to apprehend the world,” she argues, “the very idea of a *grasp* on things would have no meaning” (47; emphasis in original). As mentioned above in the discussion of *The Enchanter*, this aligns with the long connection between seeing and *possessing* (both objects and knowledge) that exists in Western art, particularly within the modern age. More importantly, though, it tells us that the same emphasis on the importance of “grasping” underlies Fyodor’s account of nature as a stage show presented for the benefit of the “intelligent eyes of man” (“Father’s Butterflies” 110). What is valued in this understanding of nature is precisely understanding itself: the ability to *grasp* nature’s subtleties. The “sly conspiracy between nature and the one alone who understands” is a conspiracy of grasping the truth, of being in on the joke (110). Thus, by insisting on the importance of “grasping,” Beauvoir argues, man “valorizes himself in the name of certain values,” but these values are neither ontologically nor biologically determined (48). “Physiology cannot ground certain values: rather, *biological data take on those*

values the existent confers upon them" (48). It is precisely this "male activity, creating values," glorifying the grasp, that Beauvoir argues "has subjugated Nature and Women" (77).

The fact that man has defined his "activity" as "creating values," making meaning out of what he observes within the world, also points to the sense of anxiety he feels about his status in relation to nature. This is clearly evident in Nabokov's texts, as the gradual accession to knowledge comforts the male figures in both *The Gift* and "The Passenger," allowing them to believe that, in contradistinction to apes and servant maids, they have attained a privileged position. They become the equals of nature, sharing in nature's conspiracy. It seems noteworthy, in this regard, that Nabokov seems to have conceptualized his work as an author in similar terms. In a comparison of the aesthetics of Nabokov with the evolutionary writings of Fyodor, Brian Boyd argues that the latter's account of "natural classification" demonstrates the importance of being able to recognize "patterns" in nature. These patterns, Boyd argues, offer a feeling of control, which Boyd sees as central to Nabokov's art:

Understanding pattern... allows some degree of control over the unruliness of life, and in Nabokov that urge to control was powerfully developed: witness his refusal to submit to interviews unless he could have the questions in advance, write out his answers, and check the final text; or his insistence that his characters were his '*galley slaves*;' or his famous comparison of the relationship between author and reader to that between chess problem and problem solver. ("Nabokov, Literature, Lepidoptera" 18)

In this account, the process of writing is explicitly linked to gaining intellectual and physical mastery over nature (as well as over characters). Boyd argues that Fyodor's and Krillovich's scientific project mirrors that of Francis Bacon, who claimed that "the glory of god is to hide a thing, and the glory of man is to find it out" (20). Nabokov, however, takes this one step

further, putting his knowledge of nature to use, much like the writer in “The Passenger,” who sought to mold the creations of the goddess of Life. The author, in this way, frees himself up from being a “galley slave” and becomes the designer of his own stage show, adapting the creations of life. Similarly, Robert Pyle argues that it was because of his work as a novelist that Nabokov refused to submit to a Darwinian, mechanistic account of nature: “Perhaps because the subterfuges of mimicry so resembled his own favorite tools as a literary trickster, Nabokov was loath to consign their wonderment to strictly mechanical causes” (65). This argument is reprised by Blackwell, who argues that Nabokov derived pleasure from deploying protective mimicry throughout his fiction:

Living creatures frequently benefit from protective coloration, as it makes them invisible to predators. This same strategy, it might plausibly be argued, is the primary literary device employed in *The Gift*, if not in Nabokov’s entire work generally. The deception involved in placing an important object in such a way that it might not be easily observed was clearly one of Nabokov’s chief delights in writing; hidden patterns, concealed messages, and traces of others’ thought and art constitute a major component of Nabokov’s artistic material and method. (“Poetics” 246-7)

Reprising the structural opposition between the characters in “The Passenger,” therefore, we can say that, through his manipulation of disguise, Nabokov transitions from critic to writer. In a sense, this is the final step in the determination of evolutionary freedom predicted by the Hegelian dialectic. In Nabokov’s idealist model, evolution culminates in man dominating life through art, shaping (*her*) “creations as a film producer does a famous novel” (183). Thus, the writer takes over the directorial role of plotting out a stage show in anticipation of future audiences. Fittingly, this also correlates with Nabokov’s own descriptions of his work as an

adaptive screenwriter, in which he inverts Fyodor's theatre of evolution and becomes a maximally agential author/director. In the introduction to his screenplay of *Lolita*, which he originally adapted in preparation for Stanley Kubrick's film (1962), Nabokov described his desire to be a master puppeteer, pulling the strings of his characters and managing every aspect of his works:

By nature I am no dramatist; I am not even a hack scenarist; but if I had given as much of myself to the stage or the screen as I have to the kind of writing which serves a triumphant life sentence between the covers of a book, I would have advocated and applied *a system of total tyranny*, directing the play or the picture myself, choosing the settings and the costumes, terrorizing the actors, mingling with them, and, in a word, *pervading the entire show with the will and art of one individual*—for there is nothing in the world that I loathe more than group activity, that communal bath where the hairy and slippery mix in a multiplication of mediocrity. (*Lolita: A Screenplay* 8-9; my emphasis)

Here, then, in keeping with the accounts of Boyd and Blackwell, Nabokov reveals his need to assert maximal agency as he transitions from being an appreciative spectator of nature to being a creator of art. He represents himself as an author-god, whose “system of total tyranny” comes with the privilege of artistic mastery and freedom. The point, of course, is that in this description, Nabokov creates something of a mythology around not only the processes of adaptive screenwriting, but also the processes of artistic production in general. Indeed, in a recent analysis of the overlap between the terms used to describe biological and artistic (re-)production, Sophie Lewis (2019) has argued that writing in all its forms is “an archetypal example of distributed, omni-surrogated labor,” directly contradicting Nabokov's presumption of extreme individuality. Authorship is always co-authorship, in other words, involving both a

multiplicity of persons and an agency that is necessarily inflected by cultural, historical, and economic conditions. In Nabokov's aesthetic ideal, however, the agency of the individual human subject is asserted above and beyond the external world. The generative mothers of the "communal bath," the surrogate labor of all those who came before, are denied in the assertion of the active male agent whose body becomes, to return to Butler again, paradoxically absent, capable of "mingling" with all the others: "the incorporeal instrument of an ostensibly radical freedom" (*Gender Trouble* 16). In other words, a fantasy: a *cogito*.

The extreme nature of that fantasy suggests that we are approaching a limit. Indeed, given this expression of maximal authorial agency, it seems worth noting that the figure of the all-controlling author is, in *Lolita* itself, something of a pathological figure. While Nabokov is not Humbert Humbert, *Lolita* clearly demonstrates the dangers of a master narrator/author who transforms the material violence he inflicts on the bodies of the world into an idealized literary work. It is, in fact, Humbert's privilege to straddle both sides of the divide that Nabokov moves between in his transition from passive spectator to active author. For Humbert, this forms part of a precise strategy intended to exculpate himself from blame while entirely eliminating Lolita's consciousness, her "life." In Hegelian terms, Humbert's subterfuge denies any possibility for a confrontation between himself and Lolita as a subject. In this way, his narrative demonstrates that, while *The Gift* and "The Passenger" might seem to celebrate an idealized fantasy of evolutionary freedom and authorial agency, created through man's transcendence of the body into the rarefied realms of the mind, *Lolita* is the limit case by which we must measure that fantasy's valorization of man's "grasp on things" (Beauvoir 47).

Lolita at the Limits of Idealism

In the closing sequence of *Lolita*, Humbert drives away from Clare Quilty's house after what he describes as "the end of the ingenious play staged for me by Quilty" (305). In the theatrical and evolutionary framework that I have been tracing throughout this chapter, therefore, we can see that Humbert positions himself as the spectator of a show that has been staged around him. He presents himself as the victim of Quilty's designs, an idea echoed by the fact that Quilty himself is a theatre director, who produces a play starring Lolita entitled *The Enchanted Hunters* (whose name, in turn, recalls the motel in which Humbert rapes Lolita, as well as the earlier story of *The Enchanter*, mentioned above). As I will argue now, Humbert's representation of Quilty as the architect of his demise—whether or not Humbert actually believes it—forms part of a recurrent strategy to represent himself as a passive observer, rather than a master manipulator. To be sure, there are frequent glimpses of the extent of Humbert's web of power in the novel, his sense of control over both the narrative he tells and the young girl around which it circles. This web can be seen, for example, in Humbert's frequent descriptions of himself as a "Wounded Spider," "sitting in the middle of a luminous web and giving little jerks to this or that strand" (54; 49). In describing his infiltration of Charlotte's and Lolita's home, for example, he says: "my web is spread all over the house as I listen from my chair where I sit like a wily wizard" (49). In moments like this, we see Humbert actively managing the strands of his narrative, maintaining his grasp over everything. More commonly, though, Humbert represents the world around him as being beyond his control. Indeed, that he should describe his own murder of Quilty as being part of "the ingenious play" that Quilty himself had staged for him clearly demonstrates his desire to represent himself as a passive participant in the drama of the novel (305).

Humbert's efforts to imagine himself as a passive observer, somehow absent from the abuses he orchestrates, are highlighted in the earliest stages of the novel, in which he recounts how he used to position himself on park benches, posing as a "quiet scholar" while young girls played around him:

How marvelous were my fancied adventures as I sat on a hard park bench pretending to be immersed in a trembling book. Around the quiet scholar, nymphets played freely, as if he were a familiar statue or part of an old tree's shadow and sheen. Once a perfect little beauty in a tartan frock, with a clatter put her heavily armed foot near me upon the bench to dip her slim, bare arms into me and tighten the strap of her roller skate, and I dissolved in the sun, with my book for a fig leaf, as her auburn ringlets fell all over my skinned knee, and the shadow of leaves I shared pulsed and melted on her radiant limb next to my chameleonic cheek. (20)

Barbara Wylie has argued that this passage is reflective of Humbert's voyeurism. She argues that the pleasure it provides him is "generated by the necessity for distance," dependent on his ability to observe the young girls rather than physically interact with them (130). To a certain extent this is true, insofar as Humbert tries to efface himself from the scene, transforming it into a purely visual encounter between the images of the young girls and a disembodied male gaze. Humbert attempts to disappear into both art and nature, describing himself as "a familiar statue or part of an old tree's shadow" (20). The moment of ecstasy (and presumably orgasm) marks the culmination of this process, as Humbert's corporeal body is literally and metaphorically "melted" away, "dissolved in the sun" (20). Thus, following Wylie's reading, we could say that Humbert derives pleasure from these girls only insofar as he imagines himself as absent, transforming himself into a voyeur who is not materially there. However, this seems to me to be a rather

strange interpretation of a scene that quite clearly depends on *proximity* rather than distance. It is, literally, the *physical* contact with the young girl's "slim, bare arms" and her "auburn ringlets" that causes Humbert to melt away in the first place (20). As was the case with *The Enchanter*, mentioned above, the ruse employed here is precisely to mystify the material encounter between an old man and a young girl in order to translate it into some kind of aesthetic, subliminal experience. Humbert's "skill," in other words, lies in his ability to carefully control the balance between activity and passivity in his own description of the scene. Indeed, we might reflect on how Humbert manages to imply that it is purely by chance that he finds himself sat down quietly, passively, on a park bench, while young girls play around him, when in fact he must have actively sought the location out. Deploying the techniques of visual and narrative protection ("protective mimicry"), in other words, Humbert camouflages himself as a passive prop in the story, innocently moved into position, when in fact he has taken quite precise steps and precautions to enable the ecstasy he experiences (note the importance of the book that *only conveniently* doubles as a fig leaf).

The dynamics of this kind of narratorial subterfuge are explored in even greater detail in the scene in which Humbert instrumentalizes Lolita's body for his masturbatory pleasure, which occurs when both of them are sat on the sofa in Charlotte's living room. This scene marks the first openly sexual encounter between Lolita and Humbert, and it involves a familiar mixture of different media. It is introduced in cinematic terms, with Humbert lamenting that "no film had recorded the curious pattern, the monogrammic linkage of [his and Lolita's] simultaneous or overlapping moves" (58). Those moves involve Humbert orchestrating (at least as he describes it) an elaborate performance on two levels. He exploits Lolita's movements on the couch as she

wiggles around in order to have her masturbate him into a climax with her feet, supposedly without her knowing:

Talking fast, lagging behind my own breath, catching up with it, mimicking a sudden toothache to explain the breaks in my patter—and all the while keeping a maniac’s inner eye on my distant goal, I cautiously increased the magic friction that was doing away, in an illusional, if not factual, sense, with the physically irremovable, but psychologically very friable texture of the material divide (pajamas and robe) between the weight of two sunburnt legs, resting athwart my lap, and the hidden tumor of an unspeakable passion. (59)

Barbara Wylie claims that this scene demonstrates that Lolita is little more than an “object of desire,” but again her argument insists too forcefully on the distinction between the rarefied world of the mind—the realm in which Humbert locates the scene (in an “illusional, if not factual, sense”)—and the world of the body (144). Again, Wylie argues that the scene is characteristic of Humbert’s voyeurism, therefore dependent on “distance” rather than proximity:

Despite Humbert Humbert’s increasing frustration and desire, he does not attempt to seduce [Lolita] outright but merely feeds from her image, indulging in *voyeuristic flights of fancy*, as he did in his European parks. This he achieves to a point of sublimation on Charlotte’s davenport, for not only does he successfully conceal his arousal from Lolita, but he even manages to dispel the element of risk which endangers them both. (144; my emphasis)

There are several points to be made about this claim. First, it is of course somewhat questionable whether we should believe Humbert in his statement about this scene, namely that Lolita “noticed nothing” (59). Not only does Humbert often distort the reality of Lolita’s

experience, but the scene itself is characterized by him distracting himself to the point of orgasm, thereby leading one to wonder how present he is in the reality of what is happening to Lolita at that moment. Secondly and relatedly, Nabokov knows as well as anybody that, as much as he might rail against Freudian readings of his work, part of the point of early childhood encounters with sexuality and sexual intercourse is that they are not necessarily fully assimilated or understood. Nevertheless, they nonetheless function as compelling influences on a child's later psychological development. Even though Humbert might presume (and *actually believe*) that Lolita is "safe" at this moment, this does not necessarily mean that she has not unconsciously registered the experience. Thirdly, even if, either consciously or unconsciously, Lolita registers nothing, it is still not necessarily the case that this constitutes a successful dispelling of "risk," as Wylie claims, because Humbert's risk and Lolita's risk in this moment are not the same. Doubtless it is true that Humbert entertains a certain amount of "risk" when, in his terms, he "crush[es] out against [Lolita's] left buttock the last throb of the longest ecstasy man or monster had ever known," but we would be hard pushed to claim that the danger posed is not far worse for her than it is for him (59). Obviously, Humbert worries constantly over the dangers of his exposure, and the risk of his being sent to prison, but while he in this scene might be able to content himself with the fact that Lolita has been "safely solipsized," it is in a sense precisely because Humbert believes that the events are happening *purely within his own mind* that Lolita is rendered vulnerable (60). *He* may well fancy himself a voyeur, but Lolita is actually, literally and physically, deployed as his own personal sex toy. It is, quite precisely, the privilege of Humbert's fantasy that allows him to believe that another human being, a young girl, can be "solipsized" and, even more, that solipsizing her will keep her safe (60).

The moment, in other words, precisely highlights Beauvoir's critique of the masculinist structure of idealist subjectivity, mentioned above. We recall that Beauvoir described this in terms of risk: "woman is originally an existent who gives *Life* and does not risk *her* life" (76). Her "essential reality," Beauvoir continued, now quoting Hegel, "is animal life, that is, life given by another entity" (76). Clearly, in this scene, Lolita's life is precisely and destructively "given by another entity." Humbert animalizes Lolita (in Hegel's terms), which we might clarify by saying that he "dehumanizes" her. Humbert attains, in other words, the prerogative to use and abuse Lolita without having to recognize her as subject, without having to recognize her as an individual who is *risking her life* in their encounter. It is, moreover, precisely this process of sublimating Lolita, of transposing her into his mind, that allows Humbert to preserve her within the virtual cinema of his memory: "nothing prevented me from repeating the performance that affected her *as little as if she were a photographic image rippling upon a screen* and I a humble hunchback abusing myself in the dark" (62; my emphasis). Tellingly, that subjunctive mood ("as if") has been a recurrent feature of the male fantasies I have traced throughout this dissertation, from Charlie Kaufman's representation of Orlean, to Marcel's representation of Albertine.

Humbert's process of idealist sublimation achieves its culmination in what is arguably the most horrifying claim within the novel, a claim that turns once again on the dynamics of agency, in which Humbert declares that Lolita, rather than Humbert himself, was responsible for their sexual encounter: "I am going to tell you something very strange: it was she who seduced me!" Only Humbert, who is so determined to see himself as the passive observer, could indulge in such an interpretation of the events, particularly given that, just a few pages later, that interpretation is directly contradicted in one of the rare moments when Lolita challenges him: "You revolting creature. I was a daisy-fresh girl, and look what you've done to me. I ought to call the police and

tell them you raped me. Oh, you dirty, dirty old man” (141). In response to this, Humbert can only ask: “Was she just joking? An ominous hysterical note rang through her silly words” (141). Such a reaction is truly “a maniac’s masterpiece,” as Humbert himself puts it later (257). It is allowed to stand, however, precisely because Humbert locates this sexual encounter between himself and Lolita purely in the realm of the imaginary, again denying the reality of any material or bodily interaction between them. Of course, we continue to notice the effects of those interactions through the dreamy, idealist haze, but only by reading between the lines of Humbert’s determinedly ambiguous descriptions of the sexual act. Those descriptions deliberately make Lolita appear as the agential actor in the narrative:

My life was handled by little Lo in an energetic, matter-of-fact manner as if it were an insensate gadget unconnected with me. While eager to impress me with the world of tough kids, she was not quite prepared for certain discrepancies between a kid’s life and mine. Pride alone prevented her from giving up; for, in my strange predicament, I feigned supreme stupidity and had her have her way—at least while I could still bear it. But really these are irrelevant matters; I am not concerned with so-called ‘sex’ at all. Anybody can imagine those elements of animality. A greater endeavor lures me on: to fix once for all the perilous magic of nymphets. (133-4)

In this moment, not only does Humbert admit that he feigns ignorance about sex precisely so that Lolita will continue *handling* his “life,” but he is forced into grammatical acrobatics so as not to communicate the reality of what is happening: “I feigned supreme stupidity and *had her have her way*” (133). Moreover, the fact that it is impossible to work out precisely what it is that Lolita struggles with when she encounters the “discrepancies between a kid’s life” and Humbert’s clearly demonstrates his strategies of narratorial manipulation (133).

That Humbert has referred to Lolita's handling of his "life"—his penis—just moments before, inclines us to believe that the "discrepancies" that he refers to are the differences in size between the penises of adolescent boys and the penises of grown men. Significantly, though, the brutal reality of what this means for Lolita—the penetrative violence that his larger penis does to her vagina and her body—is actively and carefully excluded. Indeed, Humbert's vagaries mean that another interpretation is possible: the "discrepancies" that Lolita has to contend with could suggest that Humbert, an older man, is not able to maintain an erection. The point, though, is that this mask of interpretive ambiguity created by Humbert's "fancy prose style" not only makes Lolita appear as the active agent in the sexual act but also places the blame for trying to figure out what is really happening on the readers, the "frigid gentlewomen of the jury" to whom the tale is addressed (1; 132). It is the reader, in other words, who is accused of indulging in the crime of focusing on sex. Like the all-knowing writer of "The Passenger," Humbert tries to turn the tables on his critics, demanding that they "confess" to the "animality" of their base instincts. He, by contrast, escapes into flights of artistic imagination: "I am not concerned with so-called 'sex' at all. Anybody can imagine those elements of animality" (134). Implicitly, "anybody" here refers to those kinds of people who do not join with Humbert in the interpretation he has mapped out in advance, who do not celebrate the idealism of his artistic transformation of Lolita's *life* into *art* because they are too busy trying to find out what happened. Those sex-obsessed readers, in other words, fail to recognize the so-called beauty of his efforts to ensure that Lolita will "live in the minds of later generations" (309). On the other hand, those who understand the story on a higher level (critics, in other words, rather than servant maids) share in the privilege of Humbert's "flights of fancy," wherein Lolita becomes *Lolita* (Wylie 144). As Humbert puts it in the final

lines of the novel, this supposedly saves and preserves Lolita with “the secret of durable pigments, prophetic sonnets, the refuge of art” (309).

This clearly reveals how *Lolita* functions as the culmination and the limit of the process described in “The Passenger” of adapting life into art. In *Lolita*, the final image of that process involves a combination of painting and poetry. The first of these (“the secret of durable pigments”) transforms Lolita, just like the girl in *The Enchanter*, into yet another *objet d’art*, and the reference to “prophetic sonnets” recalls the idealizing poetic tradition mentioned at the start of this chapter (309). This final aesthetic transformation, though, is simply the last in a long line of different media manipulations that are deployed throughout the novel to structure and shape the life of Lolita, from Humbert’s representation of her as a “cinematographic still” to his presentation of her as a “photographic image” (44; 62).

Given Humbert’s skillful manipulation of this process and his strategic representation of his agency, it also seems telling that he should describe his story as ending with a “Hegelian synthesis” (307). In the novel’s closing moments, when he drives away after the final scene of “the ingenious play staged for me by Quilty” (305), Humbert veers off the road in a car accident, but he represents it as a sublime moment of transcendence:

With a graceful movement I turned off the road, and after two or three big bounces, rode up a grassy slope, among surprised cows, and there I came to a gentle rocking stop. A kind of thoughtful Hegelian synthesis linking up two dead women. (306-7)

This synthesis seems to involve the combination of the car that drove off the road and killed his wife, Charlotte Haze—thereby allowing him to take possession of Lolita in the first place—with the “cows on [the] hillside” that Humbert noticed previously when he stopped his car at the side of the road after picking up Lolita from camp (after her mother had died). What is

notable about Humbert's description here, though, is that at this moment in the narrative, when Humbert claims that this Hegelian synthesis has taken place, only one of the "two dead women" he mentions is actually dead. Lolita is very much alive, living as the wife of Richard Schiller. In his notes to *The Annotated Lolita*, Alfred Appel explains away this slippage by claiming that the reference is to Lolita's "assumed death," since Humbert delays the publication of the manuscript until after she has died ("I wish this memoir to be published only when Lolita is no longer alive," 450n.307/1; 309). The moment seems telling, however, for its premature assumption that Lolita is always already dead insofar as she is transformed into Humbert's art. The editing of life, the presumption of using the lives of these two women for the purposes of a "Hegelian synthesis" that encompasses the "Confession of a White, Widowed *Male*"—the novel's subtitle explicitly references Humbert's gender—demonstrates that Humbert's privilege is precisely his purported ability to achieve aesthetic transcendence by adapting life into art (307). Here, in the same way that Fyodor transformed from being a passive observer of the "stage show" of nature into being an active author, so too does Humbert turn the tables on Quilty, becoming the author of the play that he had supposedly staged for him. Thus, the same Hegelian synthesis that structured *The Gift* is reprised again to facilitate the transformation of a male subject into a master manipulator of nature and women.

Therefore, I would argue that this should precisely complicate our understanding of the reception history of *Lolita* itself, particularly among readers who have sought to explore the connections between Nabokov, a collector of butterflies, and Humbert, a collector of nymphets. Often, this has involved rather panicky efforts to distinguish between the two, echoing Nabokov's various assertions, mentioned above, of the separation between himself and his fictional works.

Robert Pyle, for example, claims that such biographical readings are the province of “ill-informed” students:

I frequently hear some earnest student, reader, or critic say that Nabokov was ‘a butterfly buff,’ or insist that he had an ‘incurable obsession’ with butterflies. The one hopelessly trivializes a great passion; the other conflates abiding love with neurosis. Or I’ll hear ill-informed comments likening Nabokov’s affinity for Lepidoptera with some sick tangency to female exploitation, à la John Fowles’s *The Collector* or Thomas Harris’s *The Silence of the Lambs*. (35)

It seems important to insist again, in this regard, that as Nabokov certainly distinguished himself from his characters in some places and overlapped with them in others, trying to figure out whether his passions are the same as Humbert’s is a rather pointless task. Nabokov and his characters are clearly hyperaware of the blurred ambiguities that separate or combine fictional and non-fictional narratives. It seems to me, though, that the more important point is that Nabokov deploys similar models of agency and control across his evolutionary writings and his metafictional adaptations. Similar idealist tropes and narratives recur, and Nabokov plays games with his readers and audiences that seem intended to encourage and police particular forms of reception and interpretation. Moreover, these games extend beyond the framework of the novels themselves and into various paratextual forums and liminal spaces. Indeed, this occurs in the commentary that Nabokov himself provided for *Lolita*. In typical style, he opens this commentary with a familiar rhetorical gesture, highlighting the multiply mediated layers involved within the commentary itself: “After doing my impersonation of suave John Ray, the character in *Lolita* who pens the forward, any comments coming straight from me may strike one—may strike me, in fact—as an impersonation of Vladimir Nabokov talking about his own book.” Nevertheless, it is

telling that within this commentary, Nabokov (either as himself or as an impersonator) echoes quite precisely the discussion of interpretation and artistic consumption offered by the writer in “The Passenger.” Specifically, the speaker of this text, this hybrid writer-narrator-Nabokov, describes the disappointment that early readers had with *Lolita* when they found out that it was not pornographically titillating. He compares these readers to those who enjoy the conventional “clichés” of detective stories:

Old rigid rules must be followed by the pornographer in order to have his patient feel the same security of satisfaction as, for example, fans of detective stories feel—stories where, if you do not watch out, the real murderer may turn out to be, to the fan’s disgust, artistic originality (who for instance would want a detective story without a single dialogue in it). (“On a Book Entitled *Lolita*” 313)

Distinguishing readers of “taste,” in other words, from readers who consume detective stories and pornography, Nabokov again establishes a hierarchy of reception around which he intends to organize the interpretation of *Lolita*. The “good” reader of *Lolita* is the one who can identify its “artistic originality,” the sublime workings of the author-god behind the narrative. That reader then comes to share in a “sly conspiracy” with its author, an author who, in that same commentary, insists on the importance of books that offer “aesthetic bliss,” rather than “topical trash” (314-5). Again, without needing to insist categorically on the overlap between Nabokov and the voice that is speaking in this commentary, we can say that the process of coming to value *Lolita* clearly mirrors both the dynamics of reader response in “The Passenger” and the evolutionary development of cognition in *The Gift*. In each of these three cases, the task of artistic consumption seems to be to learn how to distinguish artistry at work and, therefore, to demonstrate that one is neither an ape, nor a servant maid, nor a fan of detective novels. As we

have seen, however, across Nabokov's oeuvre, that process always seems to operate by sacrificing young girls—the so-called goddesses of "*Life*"—to the intellectual development of male writers and readers, readers who are brought into the rarefied realm of interpretation and creation occupied by Nabokov and his narrators, the realm where they can share in what Beauvoir called the "master's privilege" of "creating values" and affirming the importance of "Spirit over Life" (76-7).

By tracing this process across several of Nabokov's works, this chapter has pointed to a deep-rooted entanglement between discourses of agential control and ideas of evolution and adaptation across art and nature. In the following and final chapter of this dissertation, therefore, I will explore this same entanglement in the work of Peter Greenaway, arguing that while his films try to reach for new evolutionary realities, they nevertheless fall back on certain gender hierarchies and essentialisms.

CHAPTER FOUR

SEX IN THE ZEBRA ENCLOSURE: TRANS-SPECIES HYBRIDITY AND THE LIMITS OF MAN

“What’s a few spermatozoa among brothers?”

~ Alba Bewick, *A Zed & Two Noughts*

From its strange title to its fragmentary structure, Peter Greenaway’s *A Zed & Two Noughts* (1985) is first and foremost a work of art that is difficult to assimilate. It has been said to produce a “profound alienation effect,” to be “disturbingly bleak,” and to be nothing but “pretentious, intellectualist theoreticism” (Lawrence 95; Elliott and Purdy 258; Wils and McHoul 23). From the perspective of adaptation, it is, like so many of the texts and films that this dissertation has explored, a relentlessly hybrid and hybridizing work of art. Its points of cultural reference span much of the canon of western literature and the traditions of painting, filmmaking, photography, and more. At the same time, moreover, it places those traditions into dialogue with the history of evolutionary theory, medicine, biology, and zoology. The film unfolds within the prison-like performance space of a zoo, thereby highlighting the long, unfolding tragedy of humankind’s mistreatment of animals and suggesting that both biological and cultural production are entwined with the architectures and hierarchies of control that I have considered in previous chapters. In ways that recall all of Kaufman, Proust, and Nabokov, Greenaway’s film probes the philosophical and cultural consequences of theories of evolution and artistic development, while also drawing attention to their dependence on specific value systems and forms of power.

In this chapter, I argue on the one hand that *A Zed & Two Noughts* seems to celebrate the radical freedom of Darwinism, highlighting the possibilities for creative pastiche and postmodern

play afforded by a non-utilitarian, ateleological account of evolutionary theory. On the other hand, however, I show that Greenaway's film suggests that not only has evolution across nature and culture been used to justify an entire range of abuses of so-called "human" and "nonhuman" beings, but also that it represents a system of thought that is fundamentally limited by the idea of humanity—or, more pointedly, by the idea of man. In trying to imagine something beyond that limit, however, Greenaway's film also falls back on several essentialisms regarding nature and particularly women, as the latter are made to bear the burden of biological renewal. This makes the film a fitting coda for my exploration of the influence that evolutionary theory has had on transmedia adaptation; for no matter how challenging and unconventional Greenaway's meditation on art and evolution might be, it nonetheless gets pulled back into a particularized bioeconomy that is primarily reliant on female fertility.

When Adam Kissed Eve

Many commentators have pointed to the continuing influence that questions of nature, biology, evolution, and bioethics have had on Peter Greenaway. His films display considerable concern for the natural world and often depict it as a force with the power to thwart the trivial ambitions of human beings (typically represented as male artists). Vernon Gras, for example, argues that, in many of Greenaway's films, "nature usually renews herself while the artist dies" (his gendering), while David Pascoe claims that Greenaway explores how "the natural world can never be affected by artifice" (Gras 126; Pascoe 8-9). Gras notes that, aside from *Prospero's Books* (1991), in which Caliban rescues the magus's artworks from an oncoming flood, in Greenaway's films nature often triumphs while art and artists suffer, from Madgett who plunges into the river at the end of *Drowning by Numbers* (1988) to Kracklite, who plummets to his death

in Rome at the end of *The Belly of An Architect* (1987). Similarly, commenting on *The Draughtsman's Contract* (1982), Paula Willoquet-Maricondi argues that it ends with “victory on the side of the biological” when Mr Neville, its eponymous draughtsman, is murdered in its final scene (“Beyond the Frame” 240). This reading suggests that, while Mr Neville has tried throughout *The Draughtsman's Contract* to adapt the representation of nature by using the techniques of scientific perspective and renaissance draughtsmanship, in the end he is overthrown by a natural world that refuses to be constrained.

While these analyses do tend to concretize distinctions between nature and culture that are rather more fluid in the films themselves (Vernon Gras argues that Greenaway's films are primarily about a “failure to bridge the nature/culture gap,” thereby implying that nature and culture are inherently separate in the first place), it is clear that this theme of an artist or scientist who suffers at the hands of the natural world is common across Greenaway's oeuvre (Gras 128). In *A Zed & Two Noughts*, that theme is even more complicated. First, it is doubled: the film ends with the death of not just one but two scientists/artists—the twin zoologists, Oliver and Oswald Deuce. Throughout the film, one of these zoologists, Oswald, uses photography and film to record the decay of various corpses, thereby combining artistic and scientific technologies in order to probe the limits of life and death. In the end, however, Oswald and his brother ultimately decide that, in order for them to truly understand and document the mystery of death, they will have to record their own suicide. Accordingly, in the film's closing sequence, they set up a camera to capture their own decomposition before injecting themselves with a fatal overdose. Ironically, the one thing that they fail to account for in this investigation into the functioning of the natural world is the natural world itself, which subsequently proceeds to take over their cinematic and scientific apparatus, overwhelming it with snails that cause it to spark out and catch

fire. Reading this ending in parallel with that of *The Draughtsman's Contract*, therefore, we might say that nature here yet again overthrows art and science, highlighting the triviality of human endeavor as it refuses to be constrained by the science to which it is subjected. In the words of Amy Lawrence, the film here charts “the defeat of cinema [and science] at the hands of nature” (97).

Second, the film also offsets the demise of Oliver and Oswald against the fate of another artist/scientist, Van Meegeren, the notorious forger of fake Vermeer paintings who in Greenaway's film also doubles as a veterinary and human surgeon. Van Meegeren specializes in suturing and amputating animals and patients, though not typically for their health. More often, it is so that he can position them in a series of *tableaux vivants* that allow him to adapt and reconstruct paintings by Vermeer. This obsession with reproducing Vermeer, moreover, infects Van Meegeren's life as much as his art. He forces his wife to change her name by deed poll to Catharina Bolnes, the name of the wife of Vermeer, only to complain later when he discovers that *his* Catharina Bolnes is “barren.” Vermeer is reported to have fathered at least fifteen children, so Van Meegeren's wife's infertility not only prevents him from reproducing himself in the form of an heir, but also prevents him from replicating the reported fecundity of Vermeer; he can reproduce neither himself nor someone else.⁷⁰ In response, Van Meegeren tries to manipulate each of the other women in the film into fulfilling his reproductive needs. He propositions Alba Bewick (whose legs he has removed in a series of surgeries), asking her to have sex with him by way of a particularly callous question: “what excitements can a legless woman come by?” And when she refuses, he tries to convince Oliver and Oswald to let him legally “be the father” to their

⁷⁰ For coverage of this history, see John Michael Montias, *Vermeer and His Milieu: A Web of Social History* (1991, 344-45).

children (two twins born to them by Alba). Going further, Van Meegeren even proposes an exchange for these children. He tells Oliver and Oswald that Venus de Milo is pregnant by him and, since she is determined to have an abortion, he states that he will allow her to die on the operating table so that he can swap her corpse for the twins. Thus, Van Meegeren opens up a sadistic trade in the bodies of women and children, seeking to profit from an economic system where fertility is the measure of all value. Whereas Oliver's and Oswald's investigations into evolution lead them almost ineluctably towards their own death, Van Meegeren does everything in his power to reproduce life.

In order to understand how the film arrives here, though, we must first understand how it begins. Oliver's and Oswald's inquiries into the limits of life and death stem from their desire to come to terms with the deaths of their wives, both of whom die in a car crash, in a collision with a swan at a zebra crossing. At the time of the crash, Oswald's wife was pregnant and both she and Oliver's wife were being driven by Alba in a white Ford Mercury. This, Oliver says later, was "asking for trouble," since Alba had only recently taken mercury to procure an abortion. This connection between car manufacturer and abortifacient (along with the juxtaposition of live and aborted pregnancies) is just one in a whole series of apparent relations that—in the crash in particular and in the film in general—play off randomness against causality, coincidence against fate. Indeed, after she recovers, Alba declares that the crash was simply "an accident," one of thousands that happen every day, but Oliver insists that the circumstances are too suspicious for that to be the case. As he puts it, this event was different: "the wives of two zoologists die in a car driven by a woman called Bewick who's attacked by a swan on Swan's Way!" The links, he feels, are too numerous to be explained by pure chance. Indeed, to name but a few, not only does Alba Bewick's name remind us of both the natural historian Thomas Bewick and the swan named after

him, *Cygnus bewickii*, but the fact that it happened on Swan's Way recalls the art collector from Proust's novel, Charles Swann, who, we remember, was obsessed with Vermeer (not to mention Albertine, whom Proust's narrator refers to as both Leda and a swan).⁷¹ Moreover, as many critics have noted, the fact that the number plate on the car reads "NID 26 B/W" calls to mind the film's thematic concern with black and white animals, the nest (*nid*) of a swan, and the series of coincidences that coordinate in the film around the number 26: the fact that, at the moment he first hears the crash, Oliver records the number of times a tiger paces up and down in its cage as 676 (the square of 26); that Alba claims to want 26 children, each named after a letter of the Greek alphabet; that, as Oliver points out erroneously, "there aren't 26 letters in the Greek alphabet, there's only 23"; that even that very mis-correction might itself be a confusion of Oliver's later claim that "Vermeer only painted 26 paintings and 3 of those are dubious." In other words, there are a whole series of events and (pseudo-)facts in the film that tread the line between coincidence and cause: swans, Swanns, Vermeers, Greek letters, natural history, death, life, and art—all are more or less randomly associated with one another. However, this half-random, half-coordinated constellation only sends Oliver and Oswald down a spiraling rabbit hole in their quest to explain their wives' deaths.

In the course of that quest, Oliver and Oswald adopt diametrically opposed, but equally "scientific," approaches to death. Oswald's investigation is future-oriented: as mentioned, he sets out to explore what happens to bodies after death, using time-lapse photography to film the decay

⁷¹ The transformational moment occurs in the narrator's mind as he is remembering how Albertine used to lie on his bed in his apartment: "Remembering what she had been like on my bed, I thought that I recognized the line of her thigh. As I visualized it, it became the neck of a swan, like the one in a sketch I knew where it tremulously seeks out Leda's mouth as she openly yields to the spasms of female desire, and where, because it is only a swan, she seems more alone, just as we discover over the telephone the inflexions of a voice that we do not notice until we are able to detach it from the face which for us gives its expressions their concrete form" (*F* 493-4).

of corpses. While this project seems arbitrary and random at first, it actually turns out to follow a clear, evolutionary schema; he investigates death, rot and decay in representatives from all the major plant and animal kingdoms. Moreover, his mode of inquiry is very carefully designed and is already predicted by the first line that he speaks within the film, in which he asks his brother: “How quickly does a woman decompose?” Clearly, Oswald is interested in the *effects* of death, in what happens after life has ceased. Oliver, by contrast, investigates the past: he traces life and death all the way back to the beginning of time by endeavoring to watch the entirety of a televised BBC documentary about evolution. This documentary-within-a-film, narrated by David Attenborough, charts “the evolutionary span of life on earth,” ranging between the two great mysteries that supposedly bookend it: first, the fact that life was able “to create itself, apparently, out of nothing;” and second, that evolution resulted in the “leap necessary to bridge the most sophisticated of the apes with man.” I will address this documentary intertext—entitled *Life on Earth* (1979)—in more detail below, but in terms of Oliver’s response to the death of his wife, the zoologist notes simply that he finds it “cathartic, watching life begin,” because he already “know[s] how it ends... with a swan.” In other words, Oliver, unlike his brother, is not interested in the effects of death; he seeks to measure death’s causes. What both brothers find over the course of their inquiries, however, is not only that the logic of cause and effect is insufficient for explaining the tragedy of death, but also that such logic has itself been used to justify systems of social, cultural and biological control.

Before I turn to those systems specifically, however, I would like to note that, just as Oswald’s investigation into the effects of death bridges culture and science through its deployment of a photographic apparatus, so too does Oliver combine culture and science in his search for causes. Again, this is highlighted by the very first conversation that he and his brother

have within the film. When asked by Oswald to explain in more detail what happens when bodies decompose, Oliver replies:

Oliver: The first thing that happens is bacteria set to work in the intestines.

Oswald: What sort of bacteria?

Oliver: *Bisocosis populi*. There are supposed to be 130,000 *bisocosis* in each lick of a human tongue; 250,000 in a French kiss, first exchanged in the very beginning of creation when Adam kissed Eve.

Oswald: Suppose Eve kissed Adam?

Oliver: Unlikely, she used her first 100,000 on the apple.

This early exchange is significant for three particular reasons, each of which will be addressed in later sections of this chapter. First, in blending pseudo-science with Judaeo-Christian theology, the conversation asks us to consider the relatedness of both of these myths of origin. Greenaway himself has drawn attention to this connection, noting that one of the primary questions that *A Zed & Two Noughts* raises is whether “Genesis or Darwin [is] the most likely myth” (qtd. in Lawrence 84). Greenaway levels the playing field of scientific and religious knowledge here by satirizing their respective truth claims. Scientific pretensions are exposed by the seemingly arbitrary assessment of the numbers of bacteria that reside in each “lick of the human tongue” (numbers which, incidentally, do not even correlate with the actions they describe—a French kiss would surely contain double the number of bacteria of a single lick), as well as by the pseudo-scientific name “*Bisocosis populi*,” which suggests that taxonomy is at best meaningless and at worst mad: a *biological psychosis* of the *people*. Science, it is suggested, has little more claim to authority than religion; they simply value different kinds of truth. As I will argue, in a sense the film shows that evolutionary science and the origin stories of religion are

merely two different types of grand narrative (or “regulatory fictions,” as I put it in the introduction), each one reflective of the other.

Second, the exchange reveals that Oliver’s turn to evolutionary causes is not the only aspect of the film that connects together science and mythology—Oswald’s investigation into decaying bodies does so too. The first thing that Oswald records is a rotting apple, which he bites into in a subsequent scene. Taking inspiration from the story of Adam and Eve, Oswald adapts it into a scientific experiment, thereby transferring the apple across knowledge economies. The western spiritual origin for the sin of knowledge and for the cause of death becomes the starting point for a scientific investigation into the material processes of life and death themselves. Oswald’s undertaking, therefore, is infused as much with literary and religious traditions as it is with the spirit of science. As many have pointed out and as I noted in my introduction, in the same way that Darwin’s *Origin* took its formal and narratological inspiration from the novels, story structures and political treatises of the nineteenth century, so too does Oswald’s experiment derive at least in part from the western cultural obsession with a connection between fruit, death, knowledge and women. In fact, in Greenaway’s short, televised essay-documentary, *Darwin* (1993), which functions as an informative companion piece to *A Zed & Two Noughts*, Greenaway explicitly addresses this ambiguous relation between nineteenth-century science and the biblical origin story. In “Tableau 7” of *Darwin*, “in which nineteenth-century attitudes to the creation of the world are considered,” Darwin takes the place of God in a restaging of Michelangelo’s *The Creation of Adam*, while the narrator recounts the importance of the Book of Genesis for the organization of cultural power:

The vested interests of church and state rested in established beliefs, none stronger than in the message of Genesis. God created the world in six days. He created Adam and from

Adam's spare rib he created Eve. But Eve is also responsible for original sin, and through it the sins of knowledge, on which church and state created their bulwark of power.

The paradox of knowledge, in other words, whether scientific or otherwise, is not only that it is considered a primal sin, but also that it is essential to the institutionalization of gender hierarchies. Quite simply, therefore, in the case of *A Zed & Two Noughts*, we can say that Oswald's investigation into a rotting apple is by no means innocent; it is connected to a long genealogy of misogynistic theory about women and nature.

This brings me to the third aspect of this opening exchange between Oliver and Oswald (also suggested by the tableau in *Darwin*): the blame that is attached to women by scientific and cultural systems alike. In the conversation from *A Zed & Two Noughts* (as is true throughout the film), it is unclear whether Greenaway is challenging those systems, or simply reinforcing them. On the one hand, the sequence arguably mitigates sexist stereotypes by inverting the traditional model of agency presented in the creation story: Oliver states that it was most likely Adam who kissed Eve, rather than Eve who kissed Adam. On the other hand, the exchange could just as easily be interpreted as repeating the logic of Genesis (though updating it for the twentieth century) by implying that Eve was the source of bacterial decay; bacteria (and in a sense, therefore, death) were introduced into the world, Oliver implies, with Eve's first bite of the apple. As I have already mentioned, this is just one example of a pattern that repeats throughout Greenaway's film, wherein men blame women indiscriminately for things that are not their fault. As it is here, this pattern is typically organized around matters of life and death, or sex and reproduction, from Oliver and Oswald blaming Alba for their wives' deaths, to Van Meegeren blaming Catharina for her infertility. While the film seems to expose the groundlessness of this

pattern, it nonetheless does nothing to counter the logic on which it depends: the idea that a value system can be constructed around the reproductivity of female bodies.

In the following sections of this chapter, I consider each of these three elements in turn. I focus initially on the way in which the film sets up and deconstructs several of the foundational origin stories of western mythology. Subsequently, I argue that the film deliberately inverts certain evolutionary models, challenging ideas of progress, development, and individual identity. I then consider how this impacts on the film's exploration of the process of adaptation across media, highlighting the parallelisms between Oswald's scientific investigations, the painterly processes of Van Meegeren, and the art of Greenaway himself. I show the ways in which both evolution and art are used as mechanisms to limit ways of being to an idealized image of evolutionary man. Then, in the final section, I argue that the attempts made to imagine possibilities beyond that limit generally remain constrained by their reliance on a model of female fertility that makes women little more than sacrifices in the service of so-called biological renewal.

Why did the Swan Cross the Road?

Several commentators have explored *A Zed & Two Noughts* as a postmodern or poststructuralist pastiche of the history of western civilization. They have focused on how it collapses the grand narratives of religion, science, and culture into an endless cycling of images and words, unmoored from any single or univocal interpretation. Jean Petrolle, for example, argues that *A Zed and Two Noughts* is Greenaway's "most characteristically postmodernist work" and notes with reference to Jean-François Lyotard that the film records "the collapse of faith in narrative knowledge, and specifically, in the metanarratives that undergird premodern and

modern knowledge” (160-1). Similarly, Amy Lawrence notes that *A Zed and Two Noughts* concerns the inadequacy of the fantasies of total knowledge and encyclopedism (highlighted by the film’s frequent reprise of the organization of the natural world into alphabetical systems: “A is for? Angelfish. B is for? Butterfly”). Lawrence claims that the film shows that “structuralism, or any attempt to subject the ineffable mystery of existence to a single reductive, explanatory system, renders a work, regardless of subject matter, inherently comic” (72).

This comic playfulness is due to the film’s relentless deconstruction of meaning, something that is evident right from its title sequence. The film begins with the three letters of the word “ZOO,” superimposed in bright blue on a black background and accompanied by the subheading: “a film by Peter Greenaway.” Initially, of course, this suggests that “ZOO” can be thought of as a title of the film. That title, however, quickly turns out to be an element of the diegesis: a sign in the grounds of a zoo, lit up in neon. In front of that sign, two children struggle with a black and white dalmatian as it tries to pull away from them (an early warning of the danger that the zoo poses to animals and the fight that the latter may put up against domestication). An alternative title for the film, *A Zed and Two Noughts*, then flashes up in red beneath the neon sign. Thus, already in this short sequence, we can see the film beginning to play with the fragile connections that exist between phonemes, morphemes, graphemes, signs and symbols. The seemingly transparent word “ZOO” has been fractured into its component parts and re-packaged not simply as a series of letters that would signify a place where animals are kept, but rather as one letter (or a name), Zed, and either two repeated letters (two O’s), or two numbers (two noughts: 0 0). As Amy Lawrence suggests, those two O’s could refer either to Oliver and Oswald, or they could refer to nothing at all, reflecting the idea that meaning and interpretation are all “for nought” (72).

As I will argue, however, this nihilistic interpretation seems to abandon some of the political import of Greenaway's poststructuralist project, neglecting what in my opinion is quite *meaningful* play on his part. To understand this, we need to push Lawrence's analysis slightly further, as Clive Scott does when he argues that this nothingness is itself also a supplement, an excess that shows up the holes within an otherwise comprehensive system (what poststructuralism might call a "transcendental signified") (Derrida, "Structure" 280). Scott notes that the first part of the title "A (Z)ed... A-Z promises comprehensiveness," but this is followed by an ampersand suggesting an outside and by two noughts that do not fit within the system (169). Thus, even after we have covered everything from A to Z, we are left with a remainder: a something that is also nothing; two nothings; two noughts. Moreover, the meanings of those noughts continue to proliferate. Greenaway notes that "the two brothers, Oliver and Oswald Deuce, the two letter O's, the two noughts, the two zeros of the film's title... make a spectacle of themselves," which we might feel invited to expand to: a pair of spectacles (*A Zed & Two Noughts* screenplay 14-15). Placed side by side, OO suggests a pair of eyes or glasses, calling to mind the theme of the spectacle that is showcased not only by Oswald's observational experiments, but also by Oliver's repeated trips to the zoo's cinema to watch *Life on Earth*, as well as by Van Meegeren's controlling male gaze. In the film, this is suggested visually by the fact that the letters of the neon sign flicker on and off at various points, sometimes leaving two O's, sometimes one O, sometimes nothing at all. Furthermore, this ocular interpretation also pushes the title in what Scott refers to as "the direction of pure graphism," arguing:

Z, as a grapheme, is a pictogram of a 'swan', just as the O's are pictograms of 'eggs,' symbols of birth and, more particularly, related to the archetypal pair of twins, Castor and

Pollux, the astrological Gemini, born out of an egg from the union of a swan and a god.
(169)

Oswald and Oliver Deuce, of course, take their surname from the transliteration of a Greek morphological version of Pollux—*Polydeuces*—and they recommend that Alba name her twin sons Castor and Pollux after the twin brothers born to Leda when Zeus or Jupiter raped her in the form of a swan. As I will mention momentarily, this myth itself undergoes endless transformations and adaptations throughout the film, but to stick with the ambiguities of the title for a moment, if the letter “Z” can be said to resemble a swan, then so too can the number “2,” which itself would point to another way of representing the title graphically: *AZ&20s*. What is significant, though, is that across all of these various renderings, the word “ZOO” seems to crack and collapse entirely, leading to a proliferation of letters and numbers that look like eyes, eggs, animals, and more. As noted, this gesture is political as much as playful. Given that, in the film, Oliver and Oswald take it upon themselves to liberate a range of animals from their cages in the zoo (even though, ultimately, they merely end up transferring many of them to Oswald’s lab), the fact that the word “ZOO” should dissolve into a menagerie of free-floating animal symbols is surely not without significance: the “ZOO,” the animal prison, is quite literally *deconstructed*.

Subsequently, in the wake of this highly complex opening, political deconstruction is taken up throughout the film and applied to a series of grand narratives ranging from religion and culture to science and evolution. The figure of the swan itself, in fact, crosses many of these layers, extending its significances from Greek mythology to art history, zoology and more. Beyond Alba Bewick’s namesake and Proust’s Charles Swann, the film, as mentioned, calls repeated attention to the mythological origin story of the creation of twins: the rape of Leda by

Jupiter in the form of a swan and the birth of Castor and Pollux. This intertext is first introduced by the garbled call of a journalist that plays over an early image of the car crash:

A swan? What sort of a swan? Leda? Who's Leda? Is she the injured woman? Laid by whom? By Jupiter! Was that the cause of death? A female swan? How do you know it was female? Eggs? Egg-bound? Was it wild? Perhaps it was a wild goose. Did it come from the zoo?

In this moment, not only does the proper name "Leda" flit through the multiple possible interpretations of the phrase "laid 'er" (suggesting both coitus and the laying of eggs), but so too does the confusion between geese and swans suggest that the search for authoritative meanings and causal explanations is itself little more than "a wild goose chase." Incidentally, this idea is highlighted in a later scene, in which parts of the published newspaper report of the crash are cut up by Oliver and then repurposed by Venus de Milo as she reads them out in a string of discontinuous sentences: "called mute because, unlike the Bewick, it is rarely heard... Egg-bound... There were no children." Words and signifiers are chopped and changed, cut up and traded, capable of being molded and remolded into seemingly endless permutations.

Thus, in everything connected to the swan and the crash, there is a play between the formal seriousness of art and the irony of random chance. On the one hand, the crash visualizes what it might look like were an act of God (literally, an attack by Jupiter, in the form of a swan) actually to occur in the real. On the other hand, it stages that act of God as little more than a cosmological joke, with all the bathos of the old question about why the chicken (or in this case, the swan) crossed the road. At the same time, though, it also undermines all of the self-serving authority that human beings have sought to derive from just such anthropomorphic or zoomorphic myths and jokes. Paula Willoquet-Maricondi makes this clear, arguing that, while the fact that the

accident occurs on “Swan’s way” has generally been taken as “a humorous reference to Marcel Proust,” in fact it could be understood as “the way of the swan” (“Exploitation” 69). In this interpretation, the road itself (built over a natural habitat) is reclaimed by the swan as it flees from its cage at the zoo. In essence, this is nothing more than a materialist explanation of a series of events which, in the postmodern vocabulary of the film, are typically only treated in mythological, spiritual, or imaginary terms. The tragic “accident,” in this understanding, emerges as the logical consequence of mankind’s mistreatment of animals: locking up swans in a zoo leads to a swan revolt, with deathly consequences for human beings (and, unfortunately, also for swans).

This re-imagining and materializing of the myth of Leda and Jupiter is just one example of the film’s many inversions of myths concerning the relations between humans and nature. I have already noted that the film plays with one such myth, the story of Adam and Eve, but just as important is its engagement with the account of Noah and the ark. This is significant, since Greenaway has cited the story of Noah as a kind of zoological ur-text:

I have always been fascinated by zoos—three-dimensional encyclopedias, living dictionaries of animals, yet a continuation of man’s reprehensible relationship with animals. The first animal prison was the Ark where animals went in two by two. Berlin Zoo—an animal prison inside a human prison—gave me the idea of putting these and other speculations into a film. (Lawrence 92)

Thus, Greenaway highlights a connection between structures of imprisonment and containment, mechanisms of cultural collection and display, and the arrogance of mankind’s supposed stewardship or authority over nature. Indeed, the very idea of stewardship itself, as formulated by the myth of Noah, involves uprooting animals from their habitats and placing them

in relations that they would not typically adopt, adapting life into new systems of confinement. In the film, incidentally, such a practice is undertaken by Beta when she develops her own zoo, putting “a spider and a fly in the same cage because they [are] both brown” and charging Oliver and Oswald to see it (which they describe as an “old story”). As Willoquet-Maricondi notes, zoos are “a collection of lives that have been removed from their context of origin, defunctionalized, isolated, objectified, showcased, and spectacularized” (“Exploitation” 57). Perhaps, in fleeing across the road, the swan (an animal that, of course, would have had no need of an ark in order to survive a flood) simply puts paid to the myth of zoological stewardship.

The power that the myth of Noah and the ark holds over the western imaginary, however, is evidenced by Alba’s use of it to justify stripping Oliver and Oswald of the fatherhood of the two twins she bears them. As Oliver and Oswald grow closer to Alba and her daughter Beta over the course of the film, the four of them begin to form what Donna Haraway would call a “bumptious queer family” (*Staying* 54). Alba, for example, shares her bed with Oliver and Oswald simultaneously, and both of the zoologists serve as interchangeable surrogate fathers for Beta, who “can’t tell the difference between [them].” Furthermore, Alba becomes pregnant with twins by having sex with Oliver and Oswald—an event of incestuous superfecundation that trumps even that of Zeus, Tyndareus and Leda. Alba is even nicknamed Leda as part of an “affectionate joke.” Indeed, the extent to which their lives and bodies become intimately entangled is encapsulated by Alba’s response to Oliver and Oswald when they ask her who the actual father of her baby is: she is not sure, she tells them, but then, “what’s a few spermatozoa among brothers?” Moreover, Alba is the only one to learn the intimate facts about Oliver’s and Oswald’s history, facts that were not even known to their wives: they are not just twins, but

conjoined twins, separated at birth. Nevertheless, despite all this intimacy, when Alba's sons are born, she insists on returning to the binary logic that underwrites the law of Noah's ark:

Alba: I don't want you to be the legal father of my children.

...

Oswald: We are the father.

Alba: You see?

Oliver: Bad grammar doesn't signify anything.

Alba: They went in in twos and they came out in twos. It's stopped raining. I've found my Arc-en-Ciel. I cannot have my children having three parents.

During this exchange, the camera shifts to Alba's perspective and we stare at Oliver's and Oswald's incredulous faces as she speaks this proclamation with a God-like authority. Alba declares a return to the structured logic of the ark that is also echoed by her return to a structured grammar. Oliver and Oswald, much like the two O's of the title that their names make up, trouble the limits and the laws of grammar, just as they trouble the stable unit of the family, the "naturalness" of the binary couple and the covenant between man and God about the conservation and/or regulation of nature. In joining with Philippe Arc-en-Ciel—a man, like her, without legs—Alba insists on the enduring stability of the Judaeo-Christian story, as well as on the orderliness and symmetry of couplings. In the words of the Latin phrase reprised at numerous points throughout Greenaway's film: *symmetria omnia est*. Indeed, while in many ways Oliver and Oswald are the most symmetrical of pairings, in joining with a single other they disrupt that symmetry and pose a threat to the order of the ark. In what follows, we will see that they pose a threat to the order of evolution as well.

A Straightforward Account

Oliver and Oswald pose a challenge to the purported directionality of evolution and to the authority of medical science in determining the limits of so-called “normal” human life. This is evidenced by their gradual coming together over the course of the film. They start off as brothers, somewhat estranged, each dealing with their grief in isolated spaces: Oliver drinking whisky in the movie theatre, Oswald pacing endlessly in his apartment. At this point in the film, both of them are watching clips from Attenborough’s *Life on Earth*, but separately: Oliver on the big screen and Oswald on a small television set in his room. Incidentally, this has the effect of breaking up the documentary’s narrative, splitting up a story that is supposed to form a complete whole (the most complete of all wholes, one might say). In terms of the representation of Oliver and Oswald, though, it suggests that they are both independent individuals. Over the course of the narrative, however, they are drawn progressively closer together: as mentioned, they are initially revealed to be twins and then to be conjoined twins. Not only that, but they also form intimate unions with the same individuals, entering into a series of relational triangles that become more and more tightly woven. First, there is Venus de Milo, with whom they share separate sexual relationships; second, there is Alba, whose bed they both occupy; and third, there is the tiger, into whose cage they both climb.⁷² When this tiger attacks them, moreover, it gives them an opportunity to take their coming together even further. The tiger wounds each of them, symmetrically, in the places where they were severed at birth (“below the ear... on the shoulder... on the hip... and along the shin”). In the following scene, when they appear bandaged before Van

⁷² Paula Willoquet-Maricondi notes that, when the zookeeper, Fallast, asks what Oliver and Oswald are trying to prove, Van Hoyten responds: “that they are brothers.” As Willoquet-Maricondi points out, while this may “be taken to mean that Oliver and Oswald are brothers, it can, alternatively, be suggesting that Oswald, Oliver, *and* the tiger are brothers” (“Exploitation” 65).

Meegeren, he tells them that “the tiger was obviously making a prophetic gesture” and offers to perform their last wish: to join them back together. As Oliver and Oswald sit beside one another in front of a pair of Vermeer paintings that document the advances of science and exploration, Van Meegeren asks them why they want him to perform this surgery, even though it would seem to contradict the conventional logics of scientific and medicine. In reply, Oliver tells him that they are searching for “completeness,” thereby suggesting that their initial separation was damaging rather than beneficial, traumatic rather than therapeutic. In fact, Oliver and Oswald note that their surgery was motivated by prejudice rather than by any concern for their wellbeing. Alba tells them at one point that being conjoined is something to be proud of, but they respond sardonically:

Oswald: Is it?

Oliver: Freaks and rarities used to be kept in circuses. Now we’re more civilized they’re kept in zoos.

Oswald: Our mother didn’t like the idea of us being a rare species.

Oliver: In a zoo.

Their mother’s fears, of course, were far from groundless. The narrative told here clearly recalls the history of the conjoined twins, Chang and Eng Bunker, who spent a considerable portion of their lives as curiosities for observation and who became the subject of a vast medical literature on the topic of separation.⁷³ Indeed, as Alice Dorumat Dreger notes in her social history of conjoined twins, medical science since Chang and Eng has typically manifested an urge “to surgically normalize children” born with bodies that appear different as a “charitable

⁷³ For a survey of the medical discourse concerning Chang and Eng Bunker, see Robert Bogdan, “The Social Construction of Freaks” (1996).

manifestation of pity” (5). Yet, as Dreger notes, that pity is often rejected by such people precisely because it assumes that they “must be suffering and unfortunate” (5). Moreover, the discourse of “pity” can also sometimes function as a mask for a whole series of pervasive anxieties and fears. In fact, in relation to Chang and Eng, Dreger argues that while they themselves expressed little desire for separation throughout their lives, the medical literature that grew up around them obsessed over it because the twins represented a threat to the established social order:

Medical and scientific experts were intently focused on the question of separation every time they saw or wrote of Chang and Eng. And they made it clear that, regardless of whether the brothers’ well-being would have been improved by separation, the doctors believed separation of all conjoined twins was necessary for the well-being of the *social* body. In the words of the man who performed the autopsy on Chang and Eng, their condition as sexually active conjoined twins ‘shocked the moral sense of the community.’
(24)

Of course, at one level this only demonstrates medical science’s well-known tendency to preserve the status quo. At another level, though, it takes on added significance when we consider it in relation to the specifically evolutionary context of Greenaway’s film. For the fact is that Oswald’s claim that he and his brother are searching for “completeness” suggests that there could be something equal to or even greater than the typical model of the so-called individual human being. Oliver’s and Oswald’s narrative, in fact, troubles the very notion of the evolved and independent human: the twins maintain that they are whole, unique, and individual not when they are separated, but when they are conjoined. For them, conjoined twinning—what Dreger refers to as “arguably the most extraordinary form of human anatomy”—represents a mode of being that

exceeds that of the solitary individual (6). They aim to take evolution, in some sense, beyond the limits of individualized man.

Of course, just as it is important not simply to pity conjoined twins, so too is it important not to fetishize them. The lives and experiences of conjoined twins, whether separated or whole, are unique, varied, and multifaceted. The point here is not to co-opt their experience in the service of an imagined evolutionary future. In fact, Oliver and Oswald do not end up physically joining themselves together and their final leap into the unknown results only in their respective deaths. That being said, it is undeniable that their journey undermines the traditional logics of evolution and development insofar as it reverses the so-called individual's progress from separate and distinct zygote into separate and distinct human being. Moreover, if the narrative of evolution—whether at the level of the gene, the individual or the species—is one of proliferation, multiplication, and duplication, Oliver and Oswald express an urge towards consolidation, collaboration and combination. They are many who dream of becoming one, rather than one who dreams of becoming many.

Their narrative, moreover, clearly plays off ironically against the *Life on Earth* documentary contained within the film. Indeed, where Oliver and Oswald believe that they will find “completeness” in joining themselves together, they certainly find no such comfort in the story of evolution narrated by David Attenborough. As the shadowy Van Hoyten suggests in the film, that story is simply a “straightforward account” and although “Darwin was a good storyteller,” it is still just a “dreary fiction.” As Paula Willoquet-Maricondi notes, “Attenborough’s interpretation of the origins and development of life fails to offer Oliver a satisfying answer for his wife’s death,” and this is because the film consistently questions the documentary’s archetypal model of progress (“Exploitation” 56). In fact, at one point, the film

even asks why evolution did not just stop with fish. When Oswald teaches Beta about all the different types of fish they keep in the zoo (“Zebra fish... parrot fish, elephant fish, rat fish and tiger sharks”), Oliver declares: “You see! Fish predicted everything that was to come. I don't know why evolution bothered to go on.” There is, in this sense, a kind of superfluity (rather than a necessity) to evolution’s continued proliferation of life forms. Later organisms are not presented as more complex, or better organized, or even more stable; the evolutionary ladder is tipped on its side and flattened out across the millennia. Indeed, while in one sense Amy Lawrence is right to point out that, over the course of its six time-lapse sequences, the film moves “up the evolutionary ladder” (93), from apple to prawn, crocodile, swan, dog and zebra, it could also be argued that this is not necessarily an evolutionary or temporal schematic but rather a spatialized or encyclopedic one (moving from A, apple, to Z, zebra). Moreover, a late sequence challenges the idea that the film moves *up* the ladder in this way. Once the dog has been placed in the laboratory (that is, once plant, fish, reptile, bird and mammal are all assembled), the camera begins by focusing on the dog before panning slowly back over all these life forms, reversing the apparent order of evolutionary development and linking all of the species together in a single, haunting tracking shot. As the time-lapse cameras in the laboratory flash, recording their subjects, Oswald notes that sitting in that room is “like sitting amongst lighthouses, each lighthouse giving you a bearing on lost spaces of time,” as if all of evolutionary time were spread out like a navigable sea. At the same time, we also notice the maggots that have begun to feast on all of these decaying bodies and that therefore function as a great leveler between them. That the film will soon end with Oliver’s and Oswald’s own deaths suggests that man no less than any other creature will soon be engulfed by the same decay, making way for the triumph of the maggots.

Even more importantly, Oliver's and Oswald's narrative also suggests that evolutionary theory has itself been deployed as a tool for declaring some forms of life acceptable and others not. This is clear from a late set of scenes that offset Oliver and Oswald against the traditional image of so-called "evolved" man, whose sublime individuality, as we saw in the previous chapter, is something that writers such as Nabokov have insisted on. In the first of these scenes, the twins, though not physically rejoined, are shown to be connected when they are backlit by a projector and their shadows are cast onto a screen. Sharing the "three-piece suit" that Venus de Milo has constructed for them, Oswald's and Oliver's shadows at this point form a complete whole. Immediately afterwards, however, the film cuts to its final *Life on Earth* insert of the film, which shows images of tribes of men, gathered together as communities of individuals. The vast proliferation of distinct bodies contrasts starkly with the singularity of Oliver and Oswald. Indeed, while Oliver and Oswald are initially shown to be apart while watching the *Life on Earth* clip, they soon come together and assemble on either side of the television screen. In the background, meanwhile, Attenborough's voice relates that "for some minds the most difficult step to understand in the theory of natural selection is the enormous leap from the highest apes to twentieth century man." The shadow of Oliver's and Oswald's former conjoined self (represented on screen moments before) literally hangs over this sequence. In a sense, we could say that the twins represent an obstinate refusal to see human individuation as the great and enormous leap that Attenborough's narration declares it to be. They are separate for no other reason than that the ideal of evolution was used to determine what developed and individuated man should look like and what, by contrast, should belong in a zoo.

Moreover, given that it was the so-called progress of science that caused this separation, it is all the more ironic that the reason given by the *Life on Earth* documentary for the supposed

“success” of man is his aptitude for science: “the ability to store and pass on his knowledge,” Attenborough recounts, “is the key to his success.” As *A Zed & Two Noughts* makes clear, it is precisely the edifice of medical knowledge that had been used to surgically determine the bodies of Oswald and Oliver. Their deaths at the end of the film are due as much to the threat that they pose to the established laws of the community (the rules of the zoo, the logic of the ark) as to the fact that evolution necessarily predicts that a solitary individual is always inherently better than a set of conjoined twins. Again, Greenaway’s television film *Darwin* sheds some light on this point. In the closing lines of this film, Greenaway argues that evolution in and of itself, when taken on its own terms and not constrained by the limits of a social idea of man, should create opportunities for each and every kind of species being. In the film’s final lines, the narrator comments that “Darwin has finally put man irredeemably on his own... Darwin has given us a freedom that no religious or social program has ever given us... We are now free to be what we want to be.” The problem is, of course, that what we want to be is always first and foremost a political question. Oliver and Oswald are not (and nor were they ever) afforded such freedom because they were immediately cut in two; they were made into *man*. (In this case, bad grammar signifies everything.)

The Art of Surgery

The question remains: what does this have to do with a theory of adaptation and art? Greenaway’s film clearly meditates on the nature and meaning of adaptation across nature and culture, and in a way that is precisely connected to the film’s concerns with evolution and biology. Oliver’s and Oswald’s tragedy is arguably their inability to adapt to the definition of solitary man (whether or not they should have been forced to adapt to that definition, however, is

another matter). That said, in many ways they are luckier than most: their fates, for a while at least, are certainly more enviable than those of Alba and the dead animals that Oswald sequesters in his laboratory. Indeed, the latter are the victims of a pernicious economy that springs up between Oswald, Oliver and Van Hoyten, as Oswald exploits the animals in order to come to terms with his grief and Van Hoyten exploits Oswald's grief in order to kill the black and white animals that displease him. In fact, Greenaway's film is shot through with such forms of multi-directional exploitation and control, as revealed by an exchange between Oliver and Oswald that occurs when they discuss Alba during a visit to L'Escargot:

Oswald: Does she really know what she's doing?

Oliver: She's trying to start all over again.

Oswald: By sleeping with two brothers who can't tell the difference between pleasure and grief and take advantage of her loneliness?

Oliver: My impression was she was taking advantage of our loneliness.

Oswald: So, who's gaining most out of this mutual exploitation?

The line is apposite for Greenaway's film as a whole, which shows how mutual exploitation is not only at the root of evolutionary theory (such as Dawkins' theory of the "selfish gene," discussed in chapter one) but also part of the processes of artistic production. This is demonstrated most obviously by the figure of Van Meegeren, who operates on women in order to create paintings, suggesting an allied urge between surgery's normalizing procedures and the rigorous, formal control exercised by works of art. Thus, just as the emphasis on individuation recalled Nabokov's evolutionary paradigms, so too do Van Meegeren's aesthetics recall Nabokov's fetishization of supreme artistic skill. Van Meegeren's knowledge of human and animal anatomy is so thorough that he is literally able to operate on women's bodies in order to

construct ideal works of art. Indeed, it is not even possible to know whether Van Meegeren actually needed to remove one of Alba's legs as part of the initial surgery in the wake of the car crash. All we know is that, when he tells her that she looks like the woman in Vermeer's *The Lady Standing at the Virginal*, Alba suspects that this is "precisely because you never see her legs." Van Meegeren's urge to recreate Vermeer's paintings—to not only adapt them into *tableaux vivants* but then to reproduce them as (slightly altered) forgeries—drives him literally to cut up a woman's body in order to fit her into a picture. Recalling the male narrators of Kaufman's *Adaptation*, Proust's *In Search of Lost Time*, and Nabokov's "The Passenger," Van Meegeren operates precisely by adapting a woman's life into art.

Going even further, after removing one of her legs, Van Meegeren later has Alba wear a dress that is a "copy in every detail" of the one worn by the girl at the piano in Vermeer's *The Music Lesson* and *The Concert*. He sits her on a stool at the piano and covers it with her dress in order to reproduce a version of *The Music Lesson* (though one that is, as Amy Lawrence notes, "hopelessly confused," 91). Alba complains that she is "an excuse for medical experiments and art therapy," thereby making explicit the connections between surgery and image production. In fact, Van Meegeren even has Alba "stitched" onto the footstool, rendering her incapable of moving. She is literally sutured into a work of art, "imprisoned" within it, as she herself puts it. Meanwhile, Van Meegeren only complains that it is a "pity about the hair" and shows Catharina Bolnes yet another Vermeer image, an ominous sign of what is to come.

That sign is fulfilled in the second surgery that Van Meegeren performs on Alba. In this sequence, which visually reprises the first surgery, Van Meegeren is surrounded not only by his medical equipment, but by a Vermeer catalogue thrown open to a detail of the painting, *The Mistress and the Maid* (the exact image he had shown Catharina previously). That same image is

also reproduced around the operating theatre and Van Meegeren again shows it to Catharina who (in distinction from the first surgery, where she appeared only as a body in a mirror) now finds herself in the operating room as well, styling Alba's hair. Subsequently, a close-up on Alba shows that the Vermeer image is reproduced four times, alongside another Vermeer painting and a reverse shot of Alba in a mirror. Both Alba and Vermeer are multiply replicated (exactly as one would expect from a master forger) and when Alba wakes from the surgery the first thing she does is reach for a mirror to check her reflection. What she sees makes her scream and tug at her hair as she finds that her body has yet again been scientifically remodeled to make it resemble a painting.

This theme also feeds into Greenaway's metacommentary on the art of cinema itself and the reproduction of the image in general. Van Meegeren's abuses of women, which go hand in hand with his manipulation of the painted image, also dovetail with Greenaway's exploration of the cinema and the photographic apparatus. As mentioned above, Oswald's experiments make us question the morality of using a cinematic apparatus to capture and display the decay of dead animals (the fact that all of his subjects are female also aligns his project with Van Meegeren's). Given that Oswald has engaged in a black-market trade in order to find his experimental subjects, though, one cannot help but wonder what trade Greenaway engaged in to acquire the animals for his film; there is a continuity established between Van Meegeren, Oswald, and Greenaway. Moreover, in the film's published screenplay, Greenaway explicitly ties Oswald's endeavors to the entire history of cinema, linking them to Eadweard Muybridge's proto-cinematic work recording and representing animal locomotion through the use of his zoopraxiscope: "The photos he is taking will record the animal's movement in a collection of Muybridge-like stills which will be seen later in the film" (19). Thus, Muybridge's early records of animal life are shown to

correlate with *A Zed & Two Noughts*' traffic in animal death. In this way, the film asks us to consider the point at which we find it unjustifiable for cinema itself to adapt life into art: do we condemn it when it records the decay of an apple? What about a prawn, a crocodile, a swan, a dog, a zebra? What about a human being?

The moral issue of filming a dead human is raised late on in a scene between Alba, Oswald and Oliver, when Alba tells the twins that she is ready to die. Subsequently, Oliver and Oswald ask Alba whether they can take their evolutionary investigations to their logical conclusion by filming her corpse. When she shudders at the idea of Oliver and Oswald watching her decay, Oswald reassures her that "only the camera will be watching," at which point she turns directly to the viewer and asks: "What's the point of watching me? My body's only half here." Oliver's response, that she will "fit better into the film frame," clearly makes the viewer complicit in the progressive amputations that have been carried out on Alba's body. In response, she laughs wryly: "a fine epitaph; here lies a body, cut down to fit the picture." Cinema, therefore, just like Van Meegeren's science and his art, just like the zoo that has stripped animals from their natural habitats and offered them up for display, just like Oswald's time-lapse photography, is complicit in framing, constraining, abstracting and (to adopt Paula Willoquet-Maricondi's term again) "spectacularizing" bodies according to its formal constraints and visual ideals.

Thus, from the perspectives of adaptation and cultural evolution, it could be argued that *A Zed & Two Noughts* demonstrates that the reproduction of the image, much like the reproduction of individuals, of human beings, of myths and species, is far from innocent. Indeed, in Van Meegeren's case (and even in Greenaway's case), artistic production is shown consistently to depend on both the exploitation of other lives and on the imposition of strict regulations on images and bodies. Indeed, just as the image of Oliver and Oswald as a pair of conjoined twins

did not fit with the evolutionary ideal of man presented by the *Life on Earth* documentary, so too do Van Meegeren and Greenaway suggest that Alba's body will not fit with the ideal of a Vermeer portrait. In summary, therefore, Greenaway's film documents the multiple and various ways in which the adapted image and the natural world are both policed by a dominant social order and by a given set of ideals. Reproduction, in other words, is always the reproduction of a limit which, as we will see in the final section of this chapter, is typically defined as the limit of man.

Women, Fertility and the Cross-Species Imaginary

Paradoxically, the various artists in Greenaway's film seem to cling to an idealized limit because, were they to take the theory of evolution purely and absolutely on its own terms, it would render their endeavors meaningless. That Greenaway holds to this understanding of evolution is made clear by yet another tableau in *Darwin*, in which the "theory of evolution is considered relevant to our present understanding of ourselves." I will quote the voiceover at length:

Now that we are no more, or no less, than a naked ape, our connections with our animal heritage make us severely doubt notions of their being any purpose to our existence other than that we can ascribe to animals. And since Darwin's theory suggests that the individual is the insignificant servicer of the species, then apparently the necessity to reproduce is essentially our only pertinent function. Our programmed sexuality is the primary motivation for our existence. Each individual is only a suitcase for carrying and passing on the genetical code. Post-Darwin it is not easy to successfully make any other human action or behavior or achievement significant... By the final years of his thinking,

Darwin was sure that despite any heartfelt wish to the contrary, man was not the sum and end of the evolutionary process and that, in every likelihood, *homo sapiens* was, in evolutionary terms, little more than a link that would continue after him and probably without relationship to him, since evolutionary progress had seen so many dead ends, cul-de-sacs and aborted developments, especially in the highly developed species.

Many of the hallmarks of the accounts of evolution dealt with in this dissertation are presented here. There is Darwin as a non-teleological, non-utilitarian thinker, whose theories highlight the meaninglessness of human existence. There is the formulation of the genetic “suitcase,” a metaphor that recalls Richard Dawkins’ distinction between the genetic “replicator” and the bodily “vehicle” that houses it (*Selfish Gene* 328). There is, furthermore, the suggestion that man must necessarily, in evolutionary terms, be little more than a stepping-stone towards new and different life forms. And finally, there is an insistence on the sexual determinism of human existence: humanity is defined, first and foremost, by the urge to reproduce.

As I have already mentioned, however, that urge to reproduce only results in *A Zed & Two Noughts* in the reproduction of the idea of man as an evolutionary limit. Characters who trouble that limit—who represent biological realities beyond the contours of individual man—end up remolded, excluded, even dead. Moreover, even when the film does try to point to something beyond that limit, it finds that it is unable to do so without insisting on reproductivity as the measure of all things. This is clearly evidenced by the representation of women within the film, around whom Greenaway consistently coordinates his ideas of biological renewal.

This, in fact, is something that many scholars have noticed in analyzing Greenaway’s work, as they have pointed to what seems like his relatively progressive—if somewhat essentializing—feminist politics. Vernon Gras, for example, writes that: “women protagonists, in

Greenaway's early films, always represent nature's productive, renewing force; men protagonists either engage in the futile cultural effort to order nature's changing ways or interfere in this civilizing and spiritualizing process by exploiting it commercially" (127). While this is undoubtedly true (and the deaths of the male artists in Greenaway's work, mentioned above, clearly highlight it) it also shows that Greenaway's films value women primarily for their ability to reproduce. Indeed, the one feature that distinguishes between the wives of Oliver and Oswald (we do not even know their names—the newspaper lists them only as “two wives”) is that one of them (Oswald's wife) was pregnant and the other one was not. Alba, as mentioned, dreams of having more than twenty children and declares herself a failure for not succeeding in the task. Catharina is derided for being barren. As mentioned, women are consistently blamed or disparaged either for their fertility or for their lack of it, as when Oswald tells Alba that “pregnant women are notoriously unreliable, especially when they are trying to procure an abortion.”

The one exception to this rule of women defined in terms of their fertility, seemingly, is Venus de Milo. Venus invites and subverts many of the misogynistic discourses concerning reproductivity across both nature and art. Her name, first of all, clearly bridges the worlds of life and art, recalling one of the foundational statues of the western canon and suggesting that it has been brought to life. Moreover, while this notion of a living artwork arguably recalls the archetypal fantasy of male artistic control, the myth of Pygmalion and Galatea, Venus largely throws off the yoke of male exploitation. Indeed, if Alba is a woman whose limbs are amputated so that she can be molded into a work of art, Venus de Milo is a limbless statue given arms and the freedom to move between spaces and people. She makes a living as an artist and achieves a certain level of independence by trading dirty stories for money. She finds herself on an equal footing with many of the male profiteers, as when she barter with Van Hoyten in her opening

scene, making him pay more for her services. Indeed, while Amy Lawrence argues that for Venus “every kind of intercourse is an exchange” and that therefore “art, literature, and sex become interchangeable as each becomes yet another way to make money,” we should note that this is no different from any of the men within the film (82). From another perspective, it reflects a self-sustaining ingenuity and a refusal to be valued only in terms of her reproductivity. In fact, as Lawrence also notes, Venus is actively selective of who she chooses to have sex with, refusing a request from Joshua Plate, for example, and leaving him simply to whine: “why not?”

Notably, though, Venus herself is eventually pulled back into the economy of fertility when she falls pregnant to Van Meegeren. This, as noted, puts her at his mercy, as he uses her wish for an abortion to offer Oliver and Oswald the chance to trade for her life. Nevertheless, Venus does not allow Van Meegeren to succeed in this endeavor and her final scene arguably pushes the categories of man, woman and animal to their extreme. In her closing sequence, she breaks into an animal enclosure in order (the subsequent whinnies suggest) to have sex with a zebra. Before this, Venus’s zoophilic tendencies have been hinted at throughout the film. She tells multiple stories concerning bestiality and animal-human relations and when we first meet her, Van Hoyten asks her whether she has any “experience with animals.” She also constructs an imaginarium of hybrid creatures in a conversation with Philippe Arc-en-Ciel while standing in a zebra cage. In this sequence, Venus reflects on the utility of the zebra’s multiple stripes, as well as on the tragedy that would befall any truly hybrid animal that mankind happened to discover or create:

Philippe: Do you think the zebra was a mistake?

Venus: Never.

Philippe: Do you think that black and white stripes are useful?

Venus: I'm sure they are.

Philippe: Since the zebra is such a beautiful animal, you'd have thought that man would have invented a fanciful hybrid, wouldn't you? You know like a centaur, a black and white centaur. Half woman, half zebra, with striped breasts, ruddy haunches and a white tail, and black hair.

Venus: They'd only put it in a zoo.

This fantasy of a woman-zebra hybrid, made real (or at least imaginatively more possible) by Venus' entry into the zebra enclosure, clearly marks an attempt to rewrite the mythological and biological laws of so-called nature, as well as to undermine man's drive to lock up anything it views to be different, threatening, or profitable. Specifically, *contra* the passivity of Leda in the myth of her and Zeus in the form of a swan and *contra* the separation of creatures into distinct species and cages, Venus coupling with a zebra sets out seemingly to inaugurate a new origin story of multi-species hybridity. The only problem, of course, is that this continues to root the imaginary of new evolutionary possibilities in the biology of female reproductivity, here arguably hyper-fetishized so as to make real the fantasy of cross-species hybridity expressed by Philippe. Moreover, as the fate of Philippe (who lost his legs when trying to have sex with a pregnant mare) itself suggests, Venus' tryst in the zebra enclosure is unlikely to lead, either mythologically or biologically, to a new creation. Indeed, though at one level it seems to move far beyond the evolutionary limits of man, it in fact merely continues the fetishization of female fertility that has been carried through from Greek religion all the way to evolutionary theory, and which I have also documented in this dissertation in the works of Proust, Kaufman, and Nabokov. Thus, while Venus does indeed seem to escape the fate of Alba, who is sutured into a Van Meegeren *tableau* and locked into an exploitative reproductive economy, she nonetheless

becomes the figure for a new evolutionary fantasy only on account of her biological ability to reproduce. As such, her body becomes the sacrifice that Greenaway's film is willing to make in its quest to escape the prisons of the zoo, of art, of science, and of evolution itself.

In conclusion, in many ways, Greenaway's film brings together and explodes several of the paradigms of evolution and adaptation that I have dealt with in this dissertation. *A Zed and Two Noughts* draws attention to evolutionary theory's tendency to fetishize individualism and to organize itself around an idealized image of man. At the same time, it also demonstrates how ideals of artistic production and reproduction are used to organize the adaptation of life and nature (specifically the bodies of female humans and nonhumans) into art. It deconstructs the authority of both biological science and aesthetics as frameworks through which to develop an authoritative account of adaptation. And it recognizes ongoing anxieties connected to the reproduction of both images and bodies across nature and art.

In its exploration of the ways in which fertility, hybridity, reproductivity, life, death, adaptation, transformation, and survival are differentially distributed across human and nonhuman bodies, it provides a compelling reference point for developing a historically alert theorization of the overlap between biological and cultural adaptation. At the same time, however, even as it seems to reach beyond the typical limits of evolutionary theory, it also continues to assume that nature and biocultural transformation are endlessly fertile and reproductive, thereby echoing an inherited lineage of thought that I have traced in this dissertation, stemming back prior to Darwin.

Nevertheless, the film seems a fitting place to bring this dissertation to a provisional conclusion, as it exposes so many of the assumptions about biocultural evolution that I have considered in these pages. Indeed, the film shows how, insofar as it operates bioculturally,

adaptation typically leads to the abuse and manipulation of the natural world, revealing how its mechanisms are far from neutral, regardless of whether they are put to use for the theorization of nature, or art, or both. In this way, like so many of the texts that I have considered in this dissertation, the film suggests that the biocultural deployment of adaptation after Darwin has typically revealed as much about the desires and anxieties of adaptive theorists and artists as it has about the theory and practice of adaptation itself.

CONCLUSION

When I began work on this project, I set out to develop my own biocultural theory of adaptation. Building on the work of adaptation scholars who had employed biological models in the theorization of media, I had hoped to combine their analyses with a longer history of materialist thought, running from Deleuze's and Guattari's *A Thousand Plateaus* through to the "naturalcultural assemblages" of Donna Haraway (*Staying 2*) and the new materialism of Timothy Morton. I had planned to develop a wide-ranging and diffuse theory of adaptations as biocultural "assemblages," and my reading of Spike Jonze's and Charlie Kaufman's film, *Adaptation*, had been intended as a launch pad from which to explore a broad collection of texts, all of which I viewed as in some way adapting one another. The argument was, at least to begin with, determinedly ahistorical, and one of its goals had been to move through different transformations of texts, developing its own "naturalcultural assemblage" along the way. Part of the point was for the dissertation to perform formally, as much as analytically, the assemblage theory of adaptation that it sought to develop.

That the notion of "adaptations as assemblages" with which I began has all but disappeared from my final analysis demonstrates how much my thinking has shifted (I hesitate to say "evolved") over the course of this project. Rather than take off from its early reading of *Adaptation*, my readings somewhat fell in on themselves, as they further inhabited and critiqued the premises from which they began. One of the primary things I noticed when I began to read work in "adaptation studies," "transmedia studies," and "biocultural studies" more closely was that theorists in all these fields seemed to describe nature, biology, evolution, and media in terms that confirmed their own particular viewpoints or hermeneutic frameworks. As such, I found that my object of study, adaptation, was being transformed as much by the prejudices and preferences

of the people writing about it as by anything supposedly “inherent” in adaptation itself. I found that different theories tended to emphasize different aspects of adaptation, while at the same time either explicitly or implicitly dismissing other theoretical approaches as weak or lacking. This is what I eventually came to diagnose, in the introduction to my dissertation, as the “struggle for theory.”

Simultaneously, I began to reflect more critically on my own approach to adaptation. I came to feel that I had also been guilty of naturalizing and foregrounding my own particular paradigms, paradigms that were forcing me to leave out certain issues, particularly relating to questions of gender and sexuality. As a scholar trained in literary and visual analysis (solely literary analysis before moving to the United States), I realized that there was a good deal that I had been compelled to take on faith when I first ventured into the areas of biocultural studies, literary Darwinism, biophilosophy, and the history of evolution. Bolstered by my readings in Deleuze and Guattari and other biomaterialist philosophers, I had thought that I could unproblematically borrow the models and metaphors of biological adaptation in order to theorize cultural adaptation, but I neglected to think critically about the assumptions involved in that process. I realized that the only way to rectify that was to try to historicize the biologism of cultural adaptation more accurately. While I have not been entirely successful in that aim, I have tried in this final version of the dissertation (which is not the end of the process) to elaborate the different ways in which theories of biological and cultural adaptation have come to be entangled with one another. I have not tried to offer an explanation of what adaptation across biology and culture *is* but to elaborate how biological and cultural determinations of adaptation *function*. I have tried to demonstrate how both adaptations and theorists of adaptation reveal certain anxieties in their work, particularly in relation to issues of evolution, reproduction, and transformation.

I have argued that those anxieties typically relate to issues of human and non-human sexuality and procreativity, sexual and asexual reproduction, utilitarianism and non-utilitarianism, biological and cultural hybridity, taxonomical transformation, and cultural circulation. From the early stages of my research, I had been interested in how notions of fertility, fecundity, and survival had been applied to the study of cultural adaptation, but I did not really understand why adaptation scholars had reached for mathematized models of fertility before I read Richard Dawkins' *The Selfish Gene*. I also did not understand how contested the gene-centered theory of evolution and the concept of adaptation in biology were before I went back to Darwin's *Origin* and read forward through the history of evolutionary thought. Until I read Darwin's *Descent*, I struggled to understand why gendered essentialisms and heteronormative paradigms had come to influence the evolutionary theory of culture. Assessing and critiquing that influence helped to provide a more compelling focus for my critique of the assumptions about fertility and reproduction found in biocultural theories of adaptation. I then tried to develop that across my introduction and various chapters. In my introduction, I focused mainly on biological and cultural theory, tracing a history of biologism in adaptation studies. Then, in each of my subsequent chapters, I examined a "biocultural," "transmedia" artist: Charlie Kaufman, Marcel Proust, Vladimir Nabokov, and Peter Greenaway. In each case, I tried to analyze how they deployed biocultural adaptation in their works in the service of strategic representations. By drawing out the blind spots and assumptions of their texts and films, I tried to show that adaptation is not a neutral, purely objective, natural, scientific process. Rather, it is shaped by historicizable assumptions and prejudices. I hoped that this would help to provide a more nuanced account of biological and cultural adaptation after Darwin. In this short, provisional conclusion, I will briefly summarize the shape of my argument across those chapters before reflecting on some of the

limitations of my research. I will close with a brief word on how I hope to take the project forward.

Summary

In my introduction, I examined the wider prevalence of the anxiety of evolution in the wake of the publication of Darwin's *Origin*. Building on the work of Gillian Beer, I traced the persistence and even the adaptation of evolutionary ideas and concerns across an array of nineteenth-, twentieth-, and twenty-first-century texts and films. I traced a cultural history running from *Frankenstein* to *Jurassic Park*, in which evolutionary anxieties were reprised across seemingly different texts. Within that cultural history, I also surveyed an inherited pattern of gender essentialism and sexism in so-called evolutionary theories of culture, running from Darwin's *Descent* through to the evolutionary psychology and literary Darwinism of the current day. While the analysis in that introduction was admittedly superficial, I tried to demonstrate that anxieties regarding nature, reproduction, adaptation, and evolution feature in a broad array of artistic and theoretical works.

I also clarified the focus of my dissertation. Rather than consider any number of these diverse works that have been influenced by Darwin, I stated that I wanted to address works of art that explicitly thematize the processes of mixing media—works, in other words, that function as meta-commentaries on the processes of adaptation. This was what motivated my focus on *Adaptation*, as well as on the works of Proust, Nabokov, and Greenaway.

From a theoretical perspective, I then considered how notions of hybridity and biocultural transformation relate to an extended history of theorizing adaptation and media. I argued that there is a history of biologism in the study of cultural adaptation that can be traced back at least as

far as Lessing's project of taxonomizing different media. I followed Lessing's inheritance through to the work of George Bluestone, who repurposed this earlier aesthetic theory in the service of a new model of medium specificity, separating out film and literature as different "aesthetic genera" (5). Subsequently, I noted how, in pushing back against this biologically inflected theory of medium specificity, more recent scholars have reached for discourses of biocultural hybridity, fertility, and fecundity. As post-Darwinian evolution suggested an ongoing process of taxonomical crossing, so too did later media theory develop models for exploring aesthetic mixtures. I argued, however, that it is important to historicize these later biocultural, evolutionary approaches to media, for they come with their own attendant biases and assumptions, such as a tendency to employ utilitarian models of "success," a reliance on heteronormative concepts of "fertility," and an undertheorized valuation of cultural "survival." All of the chapters that followed attempted to think more critically about those assumptions.

In Chapter One, I offered a re-reading of the biocultural evolutionism of *Adaptation*. I argued that, rather than providing a purely natural account of evolution, *Adaptation* highlighted the fantasy of a maximally efficient world of biocultural reproduction. I argued that *Adaptation* fit into a long lineage of evolutionary theory and natural philosophy which regarded nature as endlessly fertile and given over to limitless growth. In my analysis, I claimed that the film tried to convert its protagonist and narrator, Charlie Kaufman, from being a solitary and unproductive individual to being a bioculturally fertile member of evolutionary society. I argued that this led to a naturalization of certain gender hierarchies, while also implying that Charlie's adaptation of Susan Orlean's *The Orchid Thief* was simply the natural result of a biocultural process of evolution.

In Chapter Two, I examined how the narrator of Marcel Proust's *In Search of Lost Time* combined the evolutionary discourses of the nineteenth century with the discourses of new media technologies (specifically photography and film) that developed at around the same time. I examined these specifically in relation to the figure of Albertine and argued that, whereas Proust and his critics have tended to argue that the mutability of Albertine makes her resistant to capture by those technologies, in fact that mutability is a product of the narrator's anxiety. I argued that this showed how Proust's engagement with both evolutionary and media theory was far from monolithic, but that it also suggested that his representations of Albertine's sexuality and her person were motivated by a rather persistent desire not to look at her or come to know her.

In Chapter Three, I offered a reconsideration of the work of Vladimir Nabokov, focusing in particular on "The Passenger," *The Gift*, and *Lolita*. I argued that Nabokov's evolutionary and aesthetic theories were dependent more on his ideas about artistic taste and his anxieties about human exceptionalism than on the so-called factual reality of nature. I showed that his adaptive processes typically involved coercing the reader to adopt a singular, privileged interpretation, one that had already been mapped out in advance. I demonstrated that this led him to aestheticize particular forms of power and human agency, thereby manifesting his anxieties about the status of man in relation to nature.

Finally, in Chapter Four, I considered how Peter Greenaway explored the overlap between biological and cultural discourses of adaptation and evolution, revealing their entangled reliance on particular aesthetic ideals of human and nonhuman nature. I argued that while Greenaway's film, *A Zed and Two Noughts*, explodes many of the assumptions about evolution found in the theory and practice of biocultural adaptation, attempting to move beyond them, it

nonetheless reaches for a model of hyper-fetishized female fertility that ultimately roots the possibilities for biological and evolutionary renewal within the female body.

Limitations

As the dissertation sprang from a recursive re-reading of works that I initially wrote about as part of my introduction, I cannot help but feel that I have only scratched the surface in my attempt to offer a historically alert theorization of the overlapping discourses of biological and cultural adaptation. I mentioned in the introduction that the primary limitation of my research is its parochial canon, rooted in the traditions of Anglo-American and European culture. Even though I have tried to critique many of the assumptions, essentialisms, and naturalizations that I have encountered within that canon, the fact that all four of the major artists whom I consider in the dissertation are white men from America and western Europe is undoubtedly problematic, particularly in a study purportedly claiming to engage with notions of cultural and biological “evolution.” In response, I have tried to avoid generalizing about the processes of adaptation in art and nature, but it is undeniable that my analysis of adaptation has been determined by the primary case studies that I have taken up.

Relatedly, throughout this project, I have been aware of my failure to deal with issues of race, which again seems to be a primary failure of a project that purports to be concerned with the notion of evolution. I do not cover the history of the invention of race science, nor the many ways in which racist ideologies filtered into cultural production in the wake of Darwin. While I do not wish to excuse this failing, it seems to be a problem with theories of biological and cultural adaptation more generally. Indeed, many of the theoretical texts that I consider in this dissertation

have claimed, either explicitly or implicitly, to be racially blind. This can be seen in the emphasis placed by adaptation studies and biocultural theorists on the need to value *sameness* at least as much as difference. This is evidenced, for example, in Brian Boyd's *On the Origin of Stories*, in which he makes an effort to move away from the discourses of structuralism and poststructuralism that valued difference and diversity. Boyd claims that Roland Barthes' and Michel Foucault's "stress on human diversity" in their "anthropological critique" caused them to "overlook human universals" (23). He therefore emphasizes the importance of studying "human universals and human particulars, similarities and differences" (23). While operating in a different register, Kamilla Elliott in adaptation studies argues for a similar need to value similarities as much as differences. Elliott argues that one reason why the theorization of adaptation has proved difficult is because of "humanities theorization's centuries-long preference for difference and abiding hostility to similarity" (20). Elliott goes on to argue that "difference supports a host of theoretical values from Romantic originality to political nonconformity and from aesthetic formalist medium specificity theory to postmodern diversity" (20). As adaptation typically involves what Elliott calls—in a biological register—"repetition with variation," it seems to depend on some kind of valuation of sameness (what scholars have theorized as "fidelity," "survival," and more). Without wanting to deny the importance of emphasizing "sameness" in the study of adaptation, I recognize that we must not lose sight of how discourses of sameness and difference have been historically produced, often in the service of racist ideologies. Difference has been a tool for establishing racial pseudo-sciences, as well as a site for poststructuralism's radical politics; sameness can be a ground not only for collectivism but also for color-blind denials of cultural difference. In this dissertation, I have been unable elaborate either a history or a critique of the racialized discourses of sameness and difference in the spheres of biocultural

evolutionism and adaptation studies. This will have to be a task that I undertake in trying to take the project forward.

There are connected limitations in my dissertation's engagement with feminism and queer theory. My opportunity to engage with such intellectually diverse and stimulating fields as these has necessarily been limited by the lines of evolutionary biology that I have traced throughout the dissertation. Throughout my analysis, I have tried to avoid positing or reifying any kind of essentialism about either gender or sexuality, but I am not convinced that I have always been successful. Moreover, while I have tried to think with and alongside the feminist and queer theorists with whom I have sometimes been in dialogue, I am aware that I have somewhat opportunistically seized upon their complex work in order to produce critiques of the dissertation's so-called "primary" texts. I recognize, therefore, that most of what I have written here does not begin to cover the nuances of many of their arguments, and I certainly have not been able to give a careful enough history of the feminist responses to Darwinism. All I can say is that my readings in this tradition have challenged me to think harder about my own prejudices and positionality as a heterosexual white man writing about gender, reproductivity, and biocultural evolution.

The final compounding factor in this long list of problems is the dissertation's under-theorization of the concept of "anxiety." Looking back, I note that, despite my title, I have offered very little rigorous account of what I mean by the "*anxiety* of evolution." When I eventually settled on this part of the title, after reflecting on my initial forays into the theory of adaptation, I intended it—at least in part—as something of a rejoinder to the title of Harold Bloom's *The Anxiety of Influence: A Theory of Poetry* (1973). I envisioned demonstrating that this explicitly masculinist account of cultural evolution as a "battle between strong equals, *father and son* as

mighty opposites” should serve as a cautionary tale against the urge to generate vague psychobiographies of cultural evolution. Due to limitations of both time and space, however, I recognize that, in the final version of the dissertation, the theorization of anxiety has largely been moved to the background. It has, in general, resulted in what might be termed, following Paul Ricoeur, a “hermeneutics of suspicion,” as I have tried to treat my case studies as symptomatic of certain biases rather than purely self-evident representations of nature, evolution, and adaptation (32). Nevertheless, I cannot deny that I have neglected to theorize why such an approach is worthwhile or valuable, why this kind of “paranoid reading,” as Eve Kosofsky Sedgwick has called it, should help to illuminate the processes of biocultural adaptation (Sedgwick, “Paranoid” 3).

Future Adaptations

Having tried to reflect on the flaws and constraints of my dissertation, I cannot help but close by thinking about how I intend to adapt it as I take it forward. In keeping with the recursive and adaptive processes that I have undergone in working on the project so far, I can say that the limitations just identified seem to suggest a way ahead. As well as providing more rigorous theorizations of race, gender, and the nature of anxiety in relation to evolution, I feel like considerably more work will be required to historicize the inheritance of pre- and post-Darwinian biology in the theories of adaptation and media. I feel that, in its current form, the dissertation fails in its attempt to understand the inheritance of evolutionary thought in *fin-de-siècle* Europe in particular. My second chapter tried to address this in its analysis of Proust, but I do not think that I have adequately understood the combined effects that the scientific and technological

revolutions had on cultural production generally and media adaptation specifically during this time.

On a similar note, I would like to give a more accurate and compelling account of how both my dissertation as a whole and the case studies it addresses intersect with the history of science. I was largely unprepared for conceptualizing the project within that history when I began, as my engagement with biological theory grew primarily out of my readings in adaptation studies. In later versions of the project, I would like for the relationship between scientific and humanistic research to be not so unidirectional.

Obviously, significant parts of my analysis in specific chapters call for substantial revisions. The chapter on Proust, as already mentioned, probably requires reconceptualizing. Trying to chart a path between all that has been said about *In Search of Lost Time* from the perspectives of media theory, queer theory, and feminist theory, made for a chapter that, as I reflect on it now, says nothing particularly original about either Proust's novel or the depiction of Albertine. It may be that this is just because there is little more that needs to be said about Proust. If I were to develop the chapter further, though, I would like to draw out more clearly the lineage that runs from Lessing's separation of poetry and painting in *Laocoön*, through Charles Baudelaire's reflections on painting, poetry, and photography, to Proust's novel and Walter Benjamin's reading of Proust, Baudelaire, and new media. I believe that I have made a start on the project of charting this inheritance and placing it in dialogue with the development of evolutionary theory, but the final analysis leaves much to be desired.

Furthermore, my chapter on Peter Greenaway is currently only a superficial foray into his rich body of work, much of which has considerable potential for theorizing adaptation across biology and culture. In general, I would like to expand my analyses of adaptation beyond the

contours of literature and film, and thinking about Peter Greenaway's experimental museum installations and digital paintings would allow me to do just that. This would also provide an opportunity to think more concretely about what I have sometimes talked about as the adaptation of "life" or reality, which I could consider through an analysis of the spatial adaptations of museums.

Within this same line of thought, I hope that this might lead into an additional chapter that I have been conceptualizing for some time, and which found its way into the brief comments that I made about *Jurassic Park* in the introduction. I would like to explore the visualization, adaptation, and scientific representation of the paleontological past, and I am envisaging a chapter focused specifically on the representation of dinosaurs and the adaptation of ancient life. My analysis would historicize this process through a comparative study of the opening of the Natural History Museum in London in 1873 with the genetic fantasylands of *Jurassic Park*. Such an analysis would be intended to show that the representation, distribution, and dissemination of science borrows just as much from the processes of cultural adaptation as theories of cultural adaptation borrow from the discourses of biological science. I hope that this would further nuance and denaturalize the process of adopting biological models in the service of cultural theory.

This would be fitting, I think, given that my dissertation has largely ended up as a consideration of the processes of naturalization and denaturalization, rather than as an analysis of the nature of adaptation itself. As I have tried to trace the anxiety of evolution and the frequently gendered, heteronormative assumptions in the theory and practice of biocultural adaptation, my goal has been to denaturalize the evolutionary paradigms that theorists and artists have deployed. I began this dissertation with a quote from Darwin's *Origin*, in which he announced that, in his future work, a truth would be revealed about human beings' (or man's) nature: "light will be

thrown on the origin of man” (359). If this dissertation has achieved its aim, then it will have shown that such light is never just thrown; it is always directed, projected, and distorted. It will have demonstrated that the interpretations of the objects which that light illuminates are determined as much by the nature of the light itself as by the reality of the objects. And it will have shown that, in relation to adaptation, those interpretations depend on a persistent set of anxieties relating to evolution and biocultural reproduction. This dissertation has been my initial attempt to grapple with those anxieties, an attempt that must go on, as I continue to theorize biocultural adaptation in the light—and shadow—of Darwin.

BIBLIOGRAPHY

- Agamben, Giorgio. *Infancy and History: Essays on the Destruction of Experience*. Verso, 1993.
- Anderson, Benedict. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. 1983. Verso, 2006.
- Andrew, Dudley. "Adaptation." *Film and Literature*, edited by Timothy Corrigan, Routledge, 2012, pp. 65–73.
- Ansell-Pearson, Keith. *Bergson: Thinking Beyond the Human Condition*. Bloomsbury, 2018.
- . "Introduction." *Henri Bergson: Key Writings*, edited by Keith Ansell-Pearson and John Ó Maoilearca, Bloomsbury, 2014, pp. 1-55.
- Appel Jr., Alfred. *Nabokov's Dark Cinema*. Oxford UP, 1974.
- Aristotle. *Poetics*. Translated by Anthony Kenny, Oxford UP, 2013.
- Asimov, Isaac. *I, Robot*. 1950. Harper Voyager, 2001.
- Atkinson, Paul. *Henri Bergson and Visual Culture: A Philosophy for a New Aesthetic*. Bloomsbury, 2021.
- Attenborough, David, creator and presenter. *Life on Earth*, 13 episodes, BBC, 16 Jan.–10 Apr., 1979.
- Barthes, Roland. "The Death of the Author." *The Norton Anthology of Theory and Criticism*, 2nd ed., edited by Vincent B. Leitch et al., W. W. Norton, 2010, pp. 1322–1326.
- . "From Science to Literature." *The Rustle of Language*, translated by Richard Howard, U of California P, 1989, pp. 3–10.
- . "Longtemps, je me suis couché de bonne heure..." [For a Long Time I Went to Bed Early]. *The Rustle of Language*, translated by Richard Howard, U of California P, 1989, pp. 277–90.

- Bateson, William. "Heredity in the Physiology of Nations. A Review of *The Principles of Heredity*." *William Bateson, Naturalist: His Essays and Addresses Together with a Short Account of His Life*, edited by Barbara Bateson, Cambridge UP, 2009, pp. 456–459.
- Baudelaire, Charles. "The Salon of 1859: The Modern Public and Photography." *Modern Art and Modernism: A Critical Anthology*, edited by Francis Francina and Charles Harrison, Harper and Row Publishers, 1986, pp. 19-22.
- Baudrillard, Jean. *Simulacra and Simulation*, translated by Sheila Faria Glaser, U of Michigan P, 1993.
- Barazandeh, Marjan et al. "Something Darwin didn't know about barnacles: spermcast mating in a common stalked species." *Proceedings. Biological sciences* vol. 280, 1754. 16 Jan. 2013, doi:10.1098/rspb.2012.2919.
- Bazin, André. "The Ontology of the Photographic Image," translated by Hugh Gray. *Film Quarterly*, vol. 13, no. 4, Summer 1960, pp. 4-9.
- Beauvoir, Simone de. *The Second Sex*. Translated by Constance Borde and Sheila Malovany Chevallier, Vintage, 2011.
- Beer, Gillian. *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot, and Nineteenth-Century Fiction*, 3rd ed., Cambridge UP, 2009.
- "Introduction." Charles Darwin, *On the Origin of Species*, Oxford UP, 2008.
- Benjamin, Walter. *Illuminations*. Translated by Harry Zohn. Schocken Books, 2007.
- Berger, John. *Ways of Seeing*. Penguin, 1972.
- Bergson, Henri. *Creative Evolution. Henri Bergson: Key Writings*, edited by Keith Ansell-Pearson and John Ó Maoilearca, Bloomsbury, 2014, pp. 207–48.

- . *Matter and Memory. Henri Bergson: Key Writings*, edited by Keith Ansell-Pearson and John Ó Maoilearca, Bloomsbury, 2014, pp. 95–170.
- . *Time and Free Will. Henri Bergson: Key Writings*, edited by Keith Ansell-Pearson and John Ó Maoilearca, Bloomsbury, 2014, pp. 57–94.
- . *Two Sources of Morality and Religion. Henri Bergson: Key Writings*, edited by Keith Ansell-Pearson and John Ó Maoilearca, Bloomsbury, 2014, pp. 359–418.
- Bergstein, Mary. *In Looking Back One Learns to See: Marcel Proust and Photography*. Rodopi, 2014.
- Bersani, Leo. *The Freudian Body: Psychoanalysis and Art*. Columbia UP, 1986.
- Beugnet, Martine, and Marion Schmid. *Proust at the Movies*. Routledge, 2016.
- Bewick, Thomas. *History of British Birds*. 2 vols., Cambridge UP, 2014.
- The Bible*. King James Version, edited by Robert Carroll and Stephen Pickett. Oxford UP, 2008.
- Blackwell, Stephen H. “The Poetics of Science in, and around, Nabokov’s *The Gift*.” *The Russian Review*, vol. 62, April 2003, pp. 243-61.
- . *The Quill and the Scalpel: Nabokov’s Art and the Worlds of Science*. Ohio State UP, 2009.
- , and Kurt Johnson, editors. *Fine Lines: Vladimir Nabokov’s Scientific Art*. Yale UP, 2016.
- Blencowe, Claire. “Destroying Duration: The Critical Situation of Bergsonism in Benjamin’s Analysis of Modern Experience.” *Theory, Culture, & Society*, vol. 25, no. 4, 2008, pp. 139-158.
- Bloom, Harold. *The Anxiety of Influence: A Theory of Poetry*. 2nd ed., Oxford UP, 1997.
- Bluestone, George. *Novels into Film: The Metamorphosis of Fiction into Cinema*. U of California P, 1957.

- Bogdan, Robert. "The Social Construction of Freaks." *Freakery: Cultural Spectacles of the Extraordinary Body*, edited by Rosemarie Garland-Thomson, New York UP, 1996, pp. 23-37.
- Bogue, Ronald. *Deleuze on Cinema*. Routledge, 2003.
- Boyd, Brian. "Nabokov, Literature, Lepidoptera." *Nabokov's Butterflies*, edited by Boyd and Robert M. Pyle, Penguin, 2001, pp. 2-33
- . "Making Adaptation Studies Adaptive." *The Oxford Handbook of Adaptation Studies*, edited by Thomas Leitch, Oxford UP, 2017, pp. 586-606.
- . *On the Origin of Stories: Evolution, Cognition, and Fiction*. Harvard UP, 2009.
- . *Vladimir Nabokov: The Russian Years*. Princeton, 1990.
- , Joseph Carroll, and Jonathan Gottschall. *Evolution, Literature, and Film: A Reader*. Columbia UP, 2010.
- Brookes, Christopher. "Robert Malthus, Rousseauist." *The Historical Journal*, vol. 63, no. 1, 2020, pp. 15-31, doi: 10.1017/S0018246X19000141.
- Bushnell, Rebecca. *Green Desire: Imagining Early Modern English Gardens*. Cornell UP, 2003.
- (ed.). *The Marvels of the World: An Anthology of Nature Writing Before 1700*. U of Pennsylvania P, 2020.
- Butler, Judith. *Bodies That Matter*. Routledge, 2011.
- . *Gender Trouble*. Routledge, 2006.
- Cameron, James, director. *The Terminator*. Orion Pictures, 1984.
- Carey, Nessa. *The Epigenetics Revolution: How Modern Biology Is Rewriting Our Understanding of Genetics, Disease, and Inheritance*. Icon, 2011.
- . *Junk DNA: A Journey through the Dark Matter of the Genome*. Icon, 2015.

- Cattrysse, Patrick. "An Evolutionary View of Cultural Adaptations: Some Considerations." *The Routledge Companion to Adaptation*, edited by Dennis Cutchins, Katja Krieb and Eckart Voigts. Routledge, 2018, pp. 40-54.
- . *Descriptive Adaptation Studies: Epistemological and Methodological Issues*. Antwerp: Garant Publishers, 2014.
- Chambers, Robert. *Vestiges of the Natural History of Creation and Other Evolutionary Writings*. 1844. Edited by James Secord, U of Chicago P, 1994.
- Chernyshevsky, Nicolai. *What Is to Be Done?* Translated by Michael B. Katz, Cornell UP, 1989.
- Crichton, Michael. *Jurassic Park*. Alfred A. Knopf, 1991.
- . *The Lost World*. Arrow Books, 1997.
- Cixous, Hélène. "The Laugh of the Medusa," translated by Keith Cohen and Paula Cohen. *The Norton Anthology of Theory and Criticism*, edited by Vincent B. Leitch et al., 2nd ed. W. W. Norton, 2010, pp. 1942-59
- Clandfield, Peter. "Teaching Adaptation, Adapting Teaching, and Ghosts of Fidelity." *The Pedagogy of Adaptation*, edited by Dennis Cutchins, Laurence Raw, and James M. Welsh. Lanham, MD: Scarecrow, 2010, pp. 139-55.
- Connor, J. D. "The Persistence of Fidelity: Adaptation Theory Today." *M/C Journal*, vol. 10, no. 2, May 2007. journal.media-culture.org.au/0705/15-connor.php
- Cooper, Merian C., and Ernest B. Schoedsack. *King Kong*. Radio Pictures, 1933.
- Corbin, Alain. *Women for Hire: Prostitution and Sexuality in France after 1850*, translated by Alan Sheridan, Harvard UP, 1990.
- Corrigan, Timothy. "Defining Adaptation." *The Oxford Handbook of Adaptation Studies*, edited by Thomas Leitch, Oxford UP, 2017, pp. 23-35.

- Cox, Phillip. *Reading Adaptations: Novels and Verse Narratives on the Stage, 1790-1840*.
 Manchester UP, 2000.
- Cranston, Maurice. Introduction. *A Discourse on Inequality*, translated and edited by Cranston,
 Penguin, 2004, pp. 9-53.
- . *Jean-Jacques: The Early Works and Life of Jean-Jacques Rousseau, 1712-1754*, U of
 Chicago P, 1991.
- Creed, Barbara. *The Monstrous-Feminine: Film, Feminism, Psychoanalysis*. Routledge, 1993.
- Danius, Sara. *The Senses of Modernism: Technology, Perception, and Aesthetics*, Cornell UP,
 2002.
- Darwin, Charles. *Charles Darwin's Life of Erasmus Darwin*, edited by Desmond King-Hele.
 Cambridge UP, 2004.
- . *The Descent of Man*, edited by James Moore and Adrian Desmond. Penguin, 2004.
- . *The Origin of Species*, edited by Gillian Beer. Oxford UP, 2008.
- . *On the Various Contrivances by Which British and Foreign Orchids Are Fertilized by
 Insects: And on the Good Effect of Intercrossing*. Cambridge University Press, 2011.
- Darwin, Erasmus. *The Temple of Nature, or The Origin of Society. A Poem*. 1803. Baltimore:
 John W. Butler, and Bosnal and Niles, 1804.
- . *Zoonomia, or the Laws of Organic Life*. 1794-6. Cambridge UP, 2010.
- Davis, Bernard D. "Neo-Lysenkoism, IQ, and the Press." *Public Interest*, no. 73, Fall 1983, pp.
 41-9.
- Dawkins, Richard. *The Extended Phenotype: The Long Reach of the Gene*. Rev. ed., reprinted
 with corrections, Oxford UP, 2016.
- . *The Selfish Gene*. 40th Anniversary ed., Oxford UP, 2016.

- De Landa, Manuel. *A Thousand Years of Non-Linear History*. Zone Books, 2014.
- Deleuze and Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Masumi, U of Minnesota P, 1987.
- . *Anti-Oedipus: Capitalism and Schizophrenia*. Translated by Brian Masumi, U of Minnesota P, 1983.
- Dennett, Daniel. *Darwin's Dangerous Idea: Evolution and the Meanings of Life*. Penguin, 1995.
- Derrida, Jacques. *Of Grammatology*. 40th Anniversary ed., translated by Gayatri Spivak, Johns Hopkins UP, 2016.
- . *Given Time: I. Counterfeit Money*. Translated by Peggy Kamuf, U of Chicago P, 1992.
- . "Structure, Sign, and Play in the Discourse of the Human Sciences." *Writing and Difference*, translated by Alan Bass, U of Chicago P, pp. 278-93.
- Dick, Philip K. *Do Androids Dream of Electric Sheep?* 1968. Del Rey, 2017.
- Dickens, Charles. *Bleak House*. 1852-3. Penguin, 2003.
- Diderot, Denis. "Hobbisme," article for the *Encyclopédie*, VIII. John Hope Mason and Robert Wokler (trans. and eds.) *Political Writings*, Cambridge, 1992.
- Dobzhansky, Theodosius. *Genetics and the Origin of Species*. 1937. Columbia UP, 1982.
- Dragunoiu, Dana. *Vladimir Nabokov and the Poetics of Liberalism*. Northwestern UP, 2011.
- Dreger, Alice Dorumat. *One of Us: Conjoined Twins and the Future of Normal*. Harvard UP, 2005.
- Duchêne, Roger. *L'Impossible Marcel Proust*. [The Impossible Marcel Proust]. Robert Laffont, 1996.
- Dzialo, Chris. "Frustrated Time." *Puzzle Films: Complex Storytelling*, edited by Warren Buckland. Wiley-Blackwell, 2008, pp. 107–128.

- Edelman, Lee. *No Future: Queer Theory and the Death Drive*. Duke UP, 2004.
- Eliot, George. *Middlemarch*. 1871–2. Penguin, 2003.
- Elliott, Bridget, and Anthony Purdy. “Skin Deep: Fins-de-Siècle and New Beginnings in Peter Greenaway’s *The Pillow Book*.” *Peter Greenaway’s Postmodern/Poststructuralist Cinema*, rev. ed., edited by Paula Willoquet-Maricondi and Mary Alemany-Galway, Scarecrow Press, 2008, pp. 255–281
- Elliott, Kamilla. *Theorizing Adaptation*. Oxford UP, 2020.
- Foucault, Michel. *The History of Sexuality, Vol. 1: The Will to Knowledge*. Translated by Roberty Hurley, Penguin, 1998.
- Fraisse, Luc. *L’œuvre cathédrale: Proust et l’architecture médiévale*. [The Cathedral Work: Proust and Medieval Architecture]. Paris: J. Corti, 1990.
- Friedman, Lester D., and Allison B. Kavey. *Monstrous Progeny: A History of the Frankenstein Narratives*. Rutgers UP, 2016.
- Freud, Sigmund. *An Autobiographical Study*. Translated by James Strachey, W. W. Norton, 1963.
- . *Beyond the Pleasure Principle*. Translated by James Strachey, W. W. Norton, 1975.
- . “The Dissolution of the Oedipus Complex.” *The Freud Reader*, edited by Peter Gay, W. W. Norton, 1995, pp. 661–66.
- . “Analysis Terminable and Interminable.” *Moses and Monotheism, An Outline of Psychoanalysis and Other Works*, translated by James Strachey, Vintage, 2004, pp. 219–254.
- . “Some Psychological Consequences of the Anatomical Distinction Between the Sexes.” *The Freud Reader*, edited by Peter Gay, W. W. Norton, 1995, pp. 670–78.

- . *Three Essays on the Theory of Sexuality*. 1905. Translated and revised by James Strachey. Basic Books, 2000.
- French, Patrick. *Thinking Cinema with Proust*. Legenda, 2018.
- Fuchs, Michael. “When Dinosaurs Ruled the Earth? Digital Animals, Simulation, and the Return of ‘Real Nature’ in the *Jurassic Park* Movies.” *On_Culture: The Open Journal for the Study of Culture*, no. 2, 2016, <http://geb.uni-gies-sen.de/geb/volltexte/2016/12357>. Accessed 1 Apr. 2021.
- Gamble, Eliza Burt. *The Evolution of Woman: An Inquiry into the Dogma of Her Inferiority to Man*. London and New York: G. P. Putnam’s and Sons, 1894.
- Garland, Alex, director. *Ex Machina*. Universal Pictures, 2014.
- Genette, Gérard. *Palimpsests: Literature in the Second Degree*. Translated by Channa Newman and Claude Doubinsky, U of Nebraska P, 1997.
- Gilbert, Geoffrey. Introduction. *An Essay on the Principle of Population*, by Thomas Malthus, Oxford UP, 2008.
- Godard, Jean-Luc. *Contempt*. Rome Paris Films, 1963.
- Gordon, Scott. “Darwin and Political Economy: The Connection Reconsidered.” *Journal of the History of Biology*, vol. 22, 1989, pp. 109–45.
- Gottschall, Jonathan. *The Storytelling Animal: How Stories Make Us Human*. Marner Books, 2013.
- Gould, Stephen Jay. Introduction. *Evolution: The Triumph of an Idea from DNA to Darwin*, by Carl Zimmer, Arrow Books, 2003, pp. ix–xxii.
- . *The Richness of Life*. Vintage, 2007.
- . *The Mismeasure of Man*. W. W. Norton, 1996.

- Gras, Vernon. "Dramatizing the Failure to Jump the Culture/Nature Gap: The Films of Peter Greenaway," *New Literary History*, vol. 26, no. 1, Winter, 1995, pp. 123-43.
- Greenaway, Peter, director. *A Zed & Two Noughts*. Artificial Eye, 1985.
- , author. *A Zed & Two Noughts*, screenplay. Faber and Faber, 1986.
- , director. *The Belly of an Architect*. Hemdale Film Corporation, 1987.
- , director. *Darwin*. Institut Nationale Audio-Visuelle, 1993.
- , director. *The Draughtsman's Contract*. British Film Institute and Channel 4, 1982.
- , director. *Drowning by Numbers*. Prestige, 1988.
- , director. *Prospero's Books*. Miramax, 1991.
- Grogin, Robert C. *The Bergsonian Controversy in France: 1900–1914*. U of Calgary P, 1988.
- Grossman, Julie. *Literature, Film, and Their Hideous Progeny: Adaptation and ElasTEXTity*. Palgrave Macmillan, 2015.
- Guerlac, Susan. *Proust, Photography, and the Time of Life: Ravaisson, Bergson, and Simmel*. Bloomsbury, 2020.
- Halberstam, Jack. *Female Masculinity*. Duke UP, 1998.
- Hamilton, John. "'Cette douceur, pour ainsi dire wagnérienne': Musical Resonance in Proust's *Recherche*." *Proust and the Arts*, edited by Christie McDonald and François Proulx. Cambridge UP, 2015, pp. 90-98.
- Hamlin, Kimberly. *From Eve to Evolution: Darwin, Science, and Women's Rights in Gilded Age America*. U of Chicago P, 2014.
- Hand, David, director. *Snow White and the Seven Dwarfs*. Disney, 1937.
- Haraway, Donna. *Simians, Cyborgs, and Women: The Reinvention of Nature*. Taylor and Francis, 1991.

- . *Staying with the Trouble: Making Kin in the Chthulucene*. Duke UP, 2016.
- Hasenfratz, Bob, and Greg M. Colón Semenza. *The History of British Literature on Film, 1895-2015*. Bloomsbury, 2015.
- Hawks, Howard, director. *Monkey Business*. 20th Century Fox, 1952.
- Hegel, G. W. F. *Introduction to the "Philosophy of History": with an Appendix from "The Philosophy of Right"*. Translated by Leo Rauch, Hackett, 1988.
- . *Phenomenology of Spirit*. Translated by A. V. Miller, Oxford UP, 1977.
- . *Philosophy of Nature: Part Two of the Encyclopedia of the Philosophical Sciences (1830)*. Translated by A. V. Miller, Oxford UP, 2007.
- Hermansson, Casie. "Flogging Fidelity: In Defense of the (Un)Dead Horse." *Adaptation*, vol. 8, no. 2, Aug. 2015, pp. 147-60. doi: 10.1093/adaptation/apv014.
- Heskith, Ian. *Of Apes and Ancestors: Evolution, Christianity, and the Oxford Debate*. U of Toronto P, 2009.
- Hobbes, Thomas. *Elementa philosophica de cive*. London, 1782.
- . *Leviathan*. Edited by J. C. A. Gaskin, Oxford UP, 2008.
- Hodgkins, John. *The Drift: Affect, Adaptation, and New Perspectives on Fidelity*. Bloomsbury, 2013.
- Homer. *The Odyssey*. Translated by Emily Wilson, W. W. Norton, 2018.
- Hutcheon, Linda. *A Theory of Adaptation*. 2nd ed., Routledge, 2012.
- and Gary R. Bortolotti. "On the Origin of Adaptations: Rethinking Fidelity Discourse and 'Success'—Biologically." *New Literary History*, vol. 38, 2007, pp. 443-58.
- Hume, David. *A Treatise of Human Nature*. 1739. Edited by Ernest Mossner, Penguin, 1985.

- Iser, Wolfgang. "Interaction between Text and Reader." *The Norton Anthology of Theory and Criticism*, 2nd ed., edited by Vincent B. Leitch et al., W. W. Norton, 2010, pp. 1524–1532.
- Jauss, Hans Robert. "Literary History as a Challenge to Literary Theory." *New Literary History*, vol. 2, no. 1, Autumn 1970, pp. 7-31.
- Jellenik, Glenn. "Adaptation's Originality Problem: 'Grappling with the thorny questions of what constitutes originality.'" *The Routledge Companion to Adaptation*, edited by Dennis Cutchins, Katja Kreb and Eckart Voigts. Routledge, 2018, pp. 182-93.
- . "On the Origin of Adaptation, as Such: The Birth of a Simple Abstraction." *The Oxford Handbook of Adaptation Studies*, edited by Thomas Leitch, Oxford UP, 2017, pp. 36–52.
- Jenkins, Henry. *Convergence Culture: Where Old and New Media Collide*. New York UP, 2006.
- , Sam Ford, and Joshua Green. *Spreadable Media: Creating Value and Meaning in a Networked Culture*. New York UP, 2013.
- Jensen, J. Vernon. "Return to the Wilberforce—Huxley Debate." *The British Journal for the History of Science*, vol. 21, no. 2, 1988, pp. 161–179. *JSTOR*, www.jstor.org/stable/4026977. Accessed 2 Apr. 2021.
- Johnson, Kurt, and Steve Coates. *Nabokov's Blues: The Scientific Odyssey of a Literary Genius*, McGraw-Hill, 1999.
- Jones, Edmund. *The Life and Work of Sigmund Freud*, vol. 1, Basic Books, 1981.
- Jonze, Spike, director. *Adaptation*. Columbia Pictures, 2002.
- . *Her*. Warner Brothers, 2013.
- Joyce, James. *Ulysses: The 1922 Text*. Edited by Jeri Johnson, Oxford UP, 2008.

- Kaufman, Charlie and Donald Kaufman, screenwriters. *Adaptation.: The Shooting Script*. Harper Collins, 2012.
- Kinder, Marsha. "Saturday Morning Television: Endless Consumption and Transmedia Intertextuality in *Muppets*, *Raisins*, and *The Lasagna Zone*." *Playing with Power in Movies, Television, and Video Games: From Muppet Babies to Teenage Mutant Ninja Turtles*, U of California P, 1991, pp. 39–86.
- King, Geoff. *Spectacular Narratives: Hollywood in the Age of the Blockbuster*. I. B. Tauris, 2000.
- Kramnick, Jonathan "Against Literary Darwinism." *Critical Inquiry*, vol. 37, no. 2, Winter 2011, pp. 315-47.
- Krieg, Katelin. "Ruskin, Darwin, and Looking Beneath Surfaces." *Victorian Literature and Culture*, vol. 45, no. 4, 2017, pp. 709–726., doi:10.1017/S1060150317000171.
- Kristeva, Julia. "Revolution in Poetic Language." *The Kristeva Reader*, edited by Toril Moi, Blackwell, 1986, pp. 89-135.
- . *Time and Sense: Proust and the Experience of Literature*. Columbia UP, 1976.
- Kubrick, Stanley, director. *2001: A Space Odyssey*. Metro-Goldwyn-Mayer, 1968.
- , director. *Lolita*. Metro-Goldwyn-Mayer, 1962.
- Kuhn, Thomas S. *The Structure of Scientific Revolutions*. 50th Anniversary ed., U of Chicago P, 2012.
- Lacan, Jacques. "The Instance of the Letter in the Unconscious or Reason Since Freud." *Écrits*, translated by Bruce Fink, W. W. Norton, 2002, pp. 412–441.
- . *Le Séminaire. Livre XX: Encore, 1972-3*, edited by Jacques-Allain Miller. Paris: Seuil, 1975
- Ladenson, Elisabeth. *Proust's Lesbianism*. Cornell UP, 1999.

- Landy, Joshua. "Still Life in a Narrative Age: Charlie Kaufman's *Adaptation*." *Critical Inquiry*, vol. 37, no. 3, Spring, 2011, pp. 497-514.
- Laqueur, Thomas W. *Solitary Sex: A Cultural History of Masturbation*. Zone Books, 2003.
- Lawrence, Amy. *The Films of Peter Greenaway*, Cambridge UP, 1997.
- Leitch, Thomas. *Adaptation and its Discontents: From Gone with the Wind to The Passion of the Christ*. The Johns Hopkins UP, 2007.
- "Twelve Fallacies in Contemporary Adaptation Theory." *Criticism*, vol. 45, no. 2, Spring 2003, pp. 149-71
- "Against Conclusions: Petit Theories and Adaptation Studies." *The Oxford Handbook of Adaptation Studies*, edited by Thomas Leitch, Oxford UP, 2017, pp. 698-710.
- "Adaptation Studies at a Crossroads." *Adaptation*, vol. 1, no. 1, 2008, pp. 63-77.
- Lessing, Gotthold Ephraim. *Laocoön, or On the Limits of Painting and Poetry*. 1766. London: Macmillan and Co, 1874.
- Lev, Peter. "How to Write Adaptation History." *The Oxford Handbook of Adaptation Studies*, edited by Thomas Leitch, Oxford UP, 2017, pp. 661-679.
- Lewis, C. S. *Collected Letters, Volume 3: Narnia, Cambridge and Joy 1950-1963*. Edited by Walter Hooper, Harper Collins, 2006.
- Lewis, Sophie. *Full Surrogacy Now: Feminism Against Family*. Verso, 2019.
- Luckhurst, Nicola. *Science and Structure in Proust's À la recherche du temps perdu*. Oxford UP, 2000.
- Lyell, Charles. *Principles of Geology*. 1830. Edited by James Secord, Penguin, 1997.
- Lyne, Adrian, director. *Lolita*. Pathé, 1997.

- Lyotard, Jean-François. *The Postmodern Condition: A Report on Knowledge*, translated by Geoffrey Bennington and Brian Masumi, Manchester UP, 2004.
- MacCabe, Colin. "Introduction: Bazinian Adaptation: *The Butcher Boy* as Example." *True to the Spirit: Film Adaptation and the Question of Fidelity*. Edited by Colin MacCabe, Kathleen Murray, and Rick Warner, Oxford UP, 2011, pp. 3-25.
- MacDonald, J. Marc, "Malthus and the Philanthropists, 1764–1859: The Cultural Circulation of Political Economy, Botany, and Natural Knowledge. *Social Sciences*, vol. 6, no. 4, 2007. doi: 10.3390/socsci6010004.
- Mallet, James. "Nabokov's Evolution." *Fine Lines: Nabokov's Scientific Art*, edited by Stephen H. Blackwell and Kurt Johnson. Yale UP, 2016, pp. 235-42.
- Malthus, Thomas. *An Essay on the Principle of Population*. 1798. Edited by Geoffrey Gilbert, Oxford UP, 2008.
- Marx, Karl. *Marx and Engels: Selected Correspondence*. Progress Publishers, 1975.
- Mayr, Ernst. *Systematics and the Origin of Species from the Viewpoint of a Zoologist*. 1942. Harvard UP, 1999.
- McFarlane, Brian. *Novel to Film: An Introduction to the Theory of Adaptation*. Oxford UP, 1996.
- McKee, Robert. *Story: Substance, Structure, Style, and the Principles of Screenwriting*. Harper Collins, 1997.
- Mercurio, Jed, director. *Frankenstein*. ITV, 2007.
- Miller, Geoffrey. *The Mating Mind: How Sexual Choice Shaped the Evolution of Human Nature*. Doubleday, 2000.
- Milton, John. *Paradise Lost*. 1667. 2nd rev. ed., edited by Alastair Fowler, Pearson Education, 2007.

- Montias, John Michael. *Vermeer and His Milieu: A Web of Social History*. Princeton UP, 1989.
- Morton, Timothy. *The Ecological Thought*. Harvard UP, 2010.
- Mukherjee, Siddhartha. *The Gene: An Intimate History*. Simon and Schuster, 2016.
- Mulvey, Laura. "Visual Pleasure and Narrative Cinema." *Visual and Other Pleasures*, 2nd ed., Palgrave Macmillan, 2009, pp. 14-27.
- Murray, Simone. *The Adaptation Industry: The Cultural Economy of Contemporary Literary Adaptation*. Routledge, 2012.
- Nabokov, Dmitri. "On a Book Entitled *The Enchanter*." *The Enchanter*, Penguin, 2017, pp. 63-84.
- Nabokov, Vladimir. *Ada, or Ardor*. Vintage, 1990.
- . *The Annotated Lolita*, edited by Alfred Appel Jr. Penguin, 2000.
- . *The Enchanter*. Penguin, 2017.
- . "Father's Butterflies" (Addendum to *The Gift*). *Nabokov's Butterflies*, edited by Brian Boyd and Robert M. Pyle, Penguin, 2001, pp. 202-33.
- . *The Gift*. Vintage, 1991.
- . *Glory*, Penguin, 2017.
- . *Laughter in the Dark*. Penguin, 2017.
- . *Lectures on Literature*. Harvest, 1982.
- . *Lolita: A Screenplay*. *Plays*. Penguin, 2012, pp. 1-288
- . "On a Book Entitled *Lolita*." *The Annotated Lolita*, edited by Alfred Appel Jr. Penguin, 2000, pp. 311-17.
- . "The Passenger." *The Stories of Vladimir Nabokov*. Vintage, 2008, pp. 183-188.

- . *Selected Letters, 1940-1977*. Edited by Dmitri Nabokov and Matthew J. Bruccoli. Harcourt Brace Jovanovich / Bruccoli Clark Layman, 1989.
- . *Speak Memory*. Vintage, 1989.
- . *Strong Opinions*. Penguin, 2012.
- Orlean, Susan. *The Orchid Thief*. Random House, 1998.
- Pascoe, David. *Peter Greenaway: Museums and Moving Images*. Reaktion Books, 1997.
- Porter, Duncan M., and Peter W. Graham, editors. *The Portable Darwin*, Penguin, 1993.
- Porzak, Simon. "Inverts and Invertebrates: Darwin, Proust and Nature's Queer Heterosexuality." *Diacritics*, vol. 41, no. 4, 2013, pp. 6-34.
- Poulet, Georges. *L'espace proustien*. [Proustian Space]. Paris: Éditions Gallimard, 1968.
- Prindle, David. "Stephen Jay Gould as a political theorist." *Politics and the life sciences : the journal of the Association for Politics and the Life Sciences* vol. 25,1-2 (2006): 2-14.
doi:10.2990/1471-5457(2006)25[2:SJGAAP]2.0.CO;2
- Proust, Marcel. *Contre Sainte-Beuve suivi de Nouveaux mélanges*. [Against Saint-Beuve, followed by New mixtures]. Paris: Gallimard, 1982.
- . *In Search of Lost Time Volume 1: The Way by Swann's*, translated by Lydia Davis, Penguin, 2003.
- . *In Search of Lost Time Volume 2: In the Shadow of Young Girls in Flower*, translated by James Grieve, Penguin, 2003.
- . *In Search of Lost Time Volume 3: The Guermantes Way*, translated by Mark Treharne, Penguin, 2003.
- . *In Search of Lost Time Volume 4: Sodom and Gomorrah*, translated by John Sturrock, Penguin, 2003.

- . *In Search of Lost Time Volume 5: The Prisoner and The Fugitive*, translated by Carol Clark and Pete Collier, Penguin, 2003.
- . *In Search of Lost Time Volume Volume 6: Finding Time Again*, translated by Ian Patterson, Penguin, 2003.
- . *In Search of Lost Time*, translated by C. K. Scott Moncrieff, revised by Terence Kilmartin, 4 vols. Everyman Library, 2001.
- Pyle, Robert M. “Between Climb and Cloud: Nabokov Among the Lepidopterists.” *Nabokov’s Butterflies*, edited by Brian Boyd and Pyle, Penguin, 2001, pp. 35-74.
- Ray, Robert B. “The Field of ‘Literature and Films.’” *Film Adaptation*, edited by James Naremore, Rutgers UP, 2000, pp. 38–53.
- Rich, Adrienne. “Compulsory Heterosexuality and Lesbian Experience.” Henry Abelove, Michèle Aina Barale, and David M. Halperin (eds.) *The Lesbian and Gay Studies Reader*, Routledge, 1993, pp. 227-54.
- Ricoeur, Paul. *Freud and Philosophy: An Essay on Interpretation*. Translated by Denis Savage, Yale UP, 1970.
- Ridley, Matt. *The Red Queen: Sex and the Evolution of Human Nature*. Penguin, 1994.
- Ritvo, Lucille. *Darwin’s Influence on Freud: A Tale of Two Sciences*, Yale UP, 1992.
- Rivers, J. E. *Proust and the Art of Love: The Aesthetics of Sexuality in the Life, Times and Art of Marcel Proust*. Columbia UP, 1980.
- Rousseau, Jean-Jacques. *A Discourse on Inequality*. 1755. Translated and edited by Maurice Cranston, Penguin, 1984.
- . *Confessions*. 1790. Translated by Angela Scholar, Oxford UP, 2000.

- . *Correspondance Complète de Jean-Jacques Rousseau*. 52 vols., edited by Ralph A. Leigh, Institut et Musée Voltaire, 1965-1996.
- . *Émile or On Education*. 1762. Translated by Allan Bloom, 1991.
- . *Essay on the Origin of Languages and Writings Related to Music*. 1781. Translated by John T. Scott, Dartmouth College P, 2009.
- . *The Social Contract*. 1762 Translated and edited by Christopher Betts, Oxford UP, 2008.
- . "The State of War." 1750. *The Social Contract and Other Later Political Writings*, edited by Victor Gourevitch, Cambridge UP, 1997, pp. 166-168.
- Ruiz, Raúl. *Poetics of Cinema I: Miscellanies*, translated by Brian Holmes. Paris: Éditions Dis Voir, 2005.
- Ruskin, John. *The Works of John Ruskin*. Edited by E. T. Cooke and Alexander Wedderburn, vol. 25, London: George Allen, 1903–1912.
- Ruti, Mari. *The Age of Scientific Sexism: How Evolutionary Psychology Promotes Gender Profiling and Fosters the Battle of the Sexes*. Bloomsbury, 2015.
- Sabey, Josh and Keith Lawrence. "The Critic-as-Adapter." *The Routledge Companion to Adaptation*, edited by Dennis Cutchins, Katja Kreb and Eckart Voigts. Routledge, 2018, pp. 169-81.
- Saini, Angela. *Inferior: The True Power of Women and the Science that Shows It*. 4th Estate, 2017.
- Schaffner, Franklin J., director. *Planet of the Apes*. 20th Century Fox, 1968.
- Schieble, Jeff. *Digital Shift: The Cultural Logic of Punctuation*. U of Minnesota Press, 2015.
- Scott, Clive. *Spoken Image: Photography and Language*, Reaktion Books, 1999.
- Scott, Ridley, director. *Blade Runner*. Warner Brothers, 1982.

- Sedgwick, Eve. *Epistemology of the Closet*. U of California P, 1990.
- . “Paranoid Reading and Reparative Reading; or, You’re So Paranoid, You Probably Think This Introduction Is About You.” *Novel Gazing: Queer Readings in Fiction*, edited by Sedgwick. Duke UP, 1997, pp. 1–37
- Seifrid, Thomas. “Nabokov’s Poetics of Vision, or What *Anna Karenina* is Doing in *Kamera obskura*.” *Nabokov Studies*, vol. 3, 1996, pp. 1-12.
- Shakespeare, William. *Shakespeare’s Sonnets*. 1609. Edited by Katherine Duncan-Jones, Bloomsbury, 2010.
- Shelley, Mary. *Frankenstein: 1818 Text*. Edited by Nick Groom, Oxford UP, 2019.
- Shelley, Percy Bysshe. *The Major Works*. Edited by Zachary Leader and Michael O’Neill, Oxford UP, 2009.
- Sidney, Philip. *Astrophil and Stella*. 1591. *Sir Phillip Sidney: The Major Works*, edited by Katherine Duncan-Jones, Oxford UP, 2008, pp. 153–212.
- Simpson, George Gaylord. *Tempo and Mode in Evolution*. 1944. Columbia UP 1983.
- Smith, John Maynard. *Evolution and the Theory of Games*. Cambridge UP, 1982.
- Smith, Jonathan. *Charles Darwin and Victorian Visual Culture*. Cambridge UP, 2006.
- . “Domestic Hybrids: Ruskin, Victorian Fiction, and Darwin’s Botany.” *Studies in English Literature, 1500-1900*, vol. 48, no. 4, 2008, pp. 861–870. *JSTOR*, www.jstor.org/stable/40071371. Accessed 2 Apr. 2021.
- . “Evolutionary Aesthetics and Victorian Visual Culture.” *Endless Forms: Charles Darwin, Natural Science, and the Visual Arts*, edited by Diana Donald. Yale UP, 2009, pp. 236-51.
- Sontag, Susan. *On Photography*. Penguin, 1979.

- Sophocles, *The Three Theban Plays: Antigone, Oedipus the King, Oedipus at Colonus*.
Translated by Robert Fagles, Penguin, 1984.
- Spencer, Herbert. *The Principles of Biology*. London: Williams and Norgate, 1864.
- Spielberg, Stephen, director. *A.I. Artificial Intelligence*. Warner Brothers, 2001.
- . *Jurassic Park*. Universal Pictures, 1993.
- Stam, Robert. *Film Theory: An Introduction*. Blackwell Publishing, 2000.
- . Introduction. “The Theory and Practice of Adaptation.” *Literature and Film: A Guide to the Theory and Practice of Film Adaptation*, edited by Stam and Alessandra Raengo, Blackwell Publishing, 2005, pp. 1–52.
- Stelzig, Eugene L. *The Romantic Subject in Autobiography: Rousseau & Goethe*. The UP of Virginia, 2000.
- Sulloway, Frank J. *Freud, Biologist of the Mins: Beyond the Psychoanalytic Legend*. Harvard UP, 1992.
- Thatcher, Adrian. *God, Sex, and Gender: An Introduction*. Wiley-Blackwell, 2011.
- Thiher, Allen. *Fiction Rivals Science: The French Novel from Balzac to Proust*. U of Missouri P, 2001.
- Thynne, Anna. “On the Increase of Madrepores.” *Annals and Magazine of Natural History*, Taylor and Francis, 1859, pp. 449-461.
- Tomšic, Samo. *The Capitalist Unconscious: Marx and Lacan*. Verso, 2015.
- Turing, Alan. “Computing Machinery and Intelligence.” *Mind*, vol. 59, no. 236, October 1950, pp. 433-60.
- The Turtles, “Happy Together.” *Happy Together*, White Wale, 1967.

- Vidal, Gore. "Pornography." *Homage to Daniel Shays: Collected Essays, 1952-1972*, Random House, 1973, pp. 219-20.
- Vila, Roger, et al. "Phylogeny and Palaeoecology of *Polyommatus* Blue Butterflies Show Beringia was a Climate-Regulated Gateway to the New World." *Proceedings of the Royal Society of Biological Sciences*, vol. 278, 2011, pp. 2737-44, doi: 10.1098/rspb.2010.2213.
- Wachowski, Lana., and Lilly Wachowski, directors. *The Matrix*. Warner Brothers, 1999.
- Wacjman, Gérard. "The Animals that Treat Us Badly," translated by Peter Bradley. *lacanian ink* 33, www.lacan.com/lacinkXXXIII7.html
- Whale, James, director. *Frankenstein*. Universal, 1931.
- , director. *The Bride of Frankenstein*. Universal, 1935.
- Wiener, Norbert. *Cybernetics or, Control and Communication in the Animal and the Machine*, 2nd ed., Martino Publishing, 2013.
- Wilde, Oscar. "The Critic as Artist." *The Decay of Lying and Other Essays*, Penguin, 2010, pp. 39-118.
- Willoquet-Maricondi, Paula. "Beyond the Frame: The Spirit of Place in Peter Greenaway's *The Draughtsman's Contract*." *Framing the World: Explorations in Ecocriticism and Film*, edited by Willoquet-Maricondi, U of Virginia P, 2010, pp. 225-44.
- . "The Exploitation of Human and Nonhuman Nature in Peter Greenaway's *A Zed and Two Noughts*." *Interdisciplinary Studies in Literature and Environment*, vol. 10, no. 1, Winter 2003, pp. 55-74.
- Wils, David, and Alec McHoul. "Zoo-Logics: Questions of Analysis in a Film by Peter Greenaway." *Textual-Practice*, vol. 5, 1991, pp. 18-24.

- Wilson, Edmund. *Axel's Castle: A Study of the Imaginative Literature of 1870–1930*. Farrar, Straus and Giroux, 2004.
- Wittig, Monique. "The Trojan Horse." *Feminist Issues*, Fall 1984, pp. 45-49.
- Woolf, Virginia. *A Writer's Diary: Being Extracts from the Diary of Virginia Woolf*, edited by Leonard Woolf, Harcourt, 1982.
- . *Granite and Rainbow*. Harcourt and Brace, 1958.
- Wylie, Barbara. *Nabokov at the Movies: Film Perspectives in Fiction*. McFarland, 2003.
- Young, Elizabeth. "Here Comes the Bride: Wedding Gender and Race in 'Bride of Frankenstein.'" *Feminist Studies*, vol. 17, no. 3, 1991, pp. 403–437. *JSTOR*, www.jstor.org/stable/3178280. Accessed 2 Apr. 2021.
- Zimmer, Carl. *Evolution: The Triumph of an Idea from DNA to Darwin*. Arrow Books, 2003.
- Zimmer, Dieter. *A Guide to Nabokov's Butterflies and Moths*, Hamburg: privately printed, 2001.
- Žižek, Slavoj. *Living in the End Times*. Verso, 2010.