

THE AUTHOR AS EXPLORER
JUDGING PHILIP K. DICK'S RELEVANCE AND VALUE FOR DISCUSSIONS
ON THE FACULTY OF MEMORY AND THE POSTHUMAN CONDITION

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Abstract

This thesis discusses select examples from Philip K. Dick's fictional oeuvre while attempting to build a bridge to and between three views on the location of the faculty of memory and two views on the posthuman relation between the mind and the body. By engaging with rather essentialist views on the location of memory (Draaisma, Baddeley, Schacter and others), views that free up memory by locating it in the media (Landsberg) and perspectives that increasingly disembody the mind from the human skin bag (Lyotard, Clark and Hayles), this thesis argues that Dick's fictions contain and contribute to various (interconnected) strands of science and philosophy. Analysis will show that Dick's novel *Do Androids Dream of Electric Sheep?* (1968) incorporates views on the purity of memory and the artificiality of the body to sustain a larger narrative on existentialism and humanity. Throughout this thesis, Dick's imagination and conceptualisation will be treated as prophetic forces that have the power to render abstract ideas concrete and imaginable.

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INTRODUCTION

“By ‘scientification’ I mean the Jules Verne, H.G. Wells, and Edgar Allan Poe type of story – a charming romance intermingled with scientific fact and prophetic vision” (Gernsback 3).

Introducing Science-Fiction and Philip K. Dick

From Aldous Huxley’s *Brave New World* (1932) to George Orwell’s *1984* (1949) and William Gibson’s *Neuromancer* (1984), science-fiction has produced some of the greatest novels the world has ever seen. In a way this is evidenced by the collective remembrance of novels such as these, but science-fiction’s merits have long been discussed in critical circles as well. A lot of attention has specifically been paid to the genre’s strong messages. Kingsley Amis adopts this very focus in his *New Maps of Hell: A Survey of Science-fiction* (1960), a study now considered invaluable in scholarship and a cornerstone in science-fiction criticism. Amis says that the genre achieves “a means of dramatizing social inquiry, or providing a fictional mode in which cultural tendencies can be isolated and judged” (Amis 63). Thus conceived, the genre of science-fiction serves as an excellent example of the more general tendency of fiction to provide a vehicle for social criticism. If the aim of a certain piece of science-fiction were to isolate and dramatize drug use, for instance, then its privileged status as a vehicle for criticism would enable the discussion of that theme.

Other critics agree with Amis but add that the power of science-fiction as a vehicle as such depends on its content. British author and literary critic Christine Brooke-Rose says, for instance, that science-fiction “is hypothesised on the basis of some innovation in science or technology, or pseudo-science or pseudo-technology, whether human or extra-terrestrial in

origin” (qtd. on 72).¹ Brooke-Rose identifies science-fiction’s subject area as containing the theme of new technologies specifically. In *Brave New World*, for instance, these technologies allow the novel’s totalitarian government to compartmentalise groups of people to create a highly stratified society, and in *1984*, they build the telescreens that serve Big Brother’s surveillance purposes.

Science-fiction’s innovative content has curious effects on its readers, who often find that they cannot rely on real-world frameworks of reference any longer. Normal concepts are replaced with outlandish and completely alien equivalents, and readers struggle to interpret meaning in the text. Since the concepts they are confronted with are so strange and unfamiliar, science-fiction’s readers have to adapt their mode of meaning-making, which takes time. As Russian-American author and critic Isaac Asimov points out, science-fiction deals with “the reaction of human beings to changes in science and technology” (62). According to Asimov, human beings are always reacting to changes in science and technology, rather than somehow having mastered technology themselves. According to Asimov, human beings are then fairly static and technology is a force that always threatens to jump beyond our grasp.

Science-fiction’s subject matter is not only highly innovative but futuristic as well. In a way, this is evidenced by the fact that “science fiction is hard to define because it is the literature of change and it changes while you are trying to define it” (qtd. in Edwards and Jakubowski 258). Critical attempts to define the contemporary examples of the genre have

¹ Science-fiction has, in a way, always been defined as an innovative genre. This might have started when the reporter Richard Adams Locke concerted the moon story hoax, and the public believed it impossible for Locke to have possessed the inventiveness the hoax gives evidence of (Mitchell 258). The hoax consisted of six fictional articles published in the *New York Sun* starting August 25th, 1835, and was later republished in book-form as *A Discovery that the Moon Has a Vast Population of Human Beings* (1959). Locke famously starts by attributing the mock astronomical findings to John Herschel, an astronomer of some renown and a contemporary of Locke’s, saying that he need not prove his credentials as an astronomer, including discovering “every planet of our solar system” (8) and obtaining “a distinct view of objects in the moon” (8), and that he should be exalted for showing that there is life on the moon and identifying this life (8). Herschel was at the time of writing actually elsewhere, perhaps in Africa or Asia, positioning telescopes to bend starlight down their shafts or perusing star maps, completely unaware of the existence of the hoax and its author. Despite this, it is said that when he found out about it, he found it hilarious. And despite general disbelief, public reception of Locke’s mock discoveries was quite enthusiastic, for better or for worse (Silverman 33).

only yielded results belatedly, since the genre has changed already when the definition has been made. But even apart from these attempts to define the genre, science-fiction's futurity is obvious. Science-fiction authors, for instance, do not push their arenas of discussion into the future purely for the sake of doing so; they always feel compelled to "[take] into account in his stories the effect and possible future effects on human beings of scientific methods and scientific fact" (qtd. in 257).

Science-fiction has now been defined as innovative and futuristic, two conditions that are, it is safe to say, linked. But there is more to it than that, since science-fiction depends on something else as well. In order to theorise something new, one has to break away from known paths. There is a sense of daring involved in this act that can only be described as radicality. American science-fiction author and literary critic Samuel R. Delany underlines that the sense of innovation one gets when reading science-fiction depends entirely on the "presence and interaction of estrangement and cognition" (191). Estrangement and cognition mean for the author to incorporate new, futuristic elements in the text and for the reader to try and make sense of them. The difference with Asimov's argument is then that Delany seems to argue for a temporary derangement of the reader, which is stronger than the acknowledgment that humans are reacting to science-fiction's novelty.

Novelty, futurity and radicality play an exemplary role in Philip K. Dick's fictional oeuvre in combination with prophetic vision, something that will be substantiated later. Philip Kindred Dick was born in Chicago, Illinois on December 16, 1928. He spent his early childhood in San Francisco Bay in northern California, although the family quickly moved to Berkeley after Dick's father was transferred to Nevada and his parents got divorced. His academic career was quite brief, but Dick had always possessed remarkable creativity that he later channelled into an astonishing proliferation of fiction. The third instalment of the *VALIS* trilogy called *The Owl in Daylight* was never finished or published but over forty of Dick's

novels and one-hundred-and-twenty of his short stories were, nominating him five times for the Nebula Award, once for the Hugo Award and once for the British Science Fiction Award, and winning him the British Science-Fiction Award for *A Scanner Darkly* (1977) and the Hugo Award for *The Man in the High Castle* (1962). One of the Nebula Award nominations was for *Do Androids Dream of Electric Sheep?* (1968), the novel this thesis examines at length.

Dick's comments on the role of the science-fiction author have been collected in *The Dark-Haired Girl* (1988), an assortment of autobiographical works, essays, transcripts of talks delivered and poems that were anthologised by Mark Ziesing and all very dear to Dick. Dick's comments in general reflect and build on the definitions and properties of science-fiction provided earlier. He says, for instance, that the science-fiction author must "look continually ahead, always at the future" (131). He also says, in "Man, Android and Machine," that science-fiction features numerous examples of masks that must never be confused with what lies underneath (203), concentrating Brooke-Rose's idea of novelty and Delaney's idea of radicality in the acts of covering and uncovering that the idea of the mask implies. Dick finally develops the idea of the mask further in "The Dark-Haired Girl,"² in which he invokes a second metaphor, saying that "this is a cardboard universe, and if you lean too long or too heavily against it, you fall through" (92). Superficial cover-ups such as masks and cardboard boxes impair one's view of whatever lies concealed, while keeping the promise alive that there is always a truth behind the truth. But cardboard boxes enclose whatever is in it, so that the world outside, just like the cardboard character of the universe, is not known, and the act of uncovering the cardboard carries with it an even greater shock value for whoever does the uncovering.

² "The Dark-Haired Girl" is a hundred-somewhat page autobiographical account that centres on Dick's fascination with the schizoid, soulless girl and the primary work of non-fiction in its namesake collection

Dick's idea of the cardboard universe often involves multiple themes, even besides technological innovation. These themes have still been left unexplored, but the following analysis of one of Dick's short stories will reveal them.

Introducing Dick's Fiction

"Imposter"³ is both exemplary of science-fiction's novelty, futurity and radicality and thematically representative of Dick's fictional 50s and 60s oeuvre. The short story begins with Spence Olham, a top-tier, government-employed scientist, who is aiding in the fight against the Outspacers, extra-terrestrial beings from Alpha Centauri, by creating formulas for expanding protective bubbles around the Earth's major cities and later the planet itself. One day, Olham's fellow employees Nelson and Peters accuse him of being an Outspace spy, sent to Earth to destroy the facility and kill its workers. Olham denies vehemently but is captured and then questioned. Once in the detainment facility, he manages to escape by pretending to actually be a spy; for these spies are equipped with self-destruction bombs and his peers know this. Although he escapes, Nelson and Peters are after him, and they follow him into the woods. There, Olham suggests, the crashed space ship of the real spy should be visible, the sight of which should prove his innocence. And indeed, when the pursuers approach the prostrate body in the ship, they see a glint of metal in the chest. But they also quickly see that the glint of metal is the blade of a knife, and that the knife was probably used to kill the real Olham, who now lies in the space ship. The company scarcely has the time to muster surprised looks, as the fake one promptly blows himself up and kills everyone in a ten-mile radius.

In "Imposter," the cardboard box consists partly of the existence of technologically reproduced memories. The fake Olham is capable of saying to the real Olham's wife, that he

³ Although "Imposter" was later anthologised as part of *Second Variety: The Collected Stories of Philip K. Dick Vol. 3*, it first appeared in *Astounding* in June, 1953.

would like to go on vacation to the mountain range “where [they] went that time” (193). Ironically, he also asks the wife whether *she* remembers their trip, recounting how he “almost stepped on a gopher snake” (193). The fact of the matter is that we do not expect the speaker to be a reproduction because he seems to intimately remember past events. We know as readers that we should be wary, but we also do not know how the story will unfold. Later on, when the fake Olham is questioned by Nelson, he uses memory again, imploring Nelson to listen and saying how he was his friend and his roommate at University (195) and how he introduced that dark-haired girl to him “at Ted’s place” (195). Reminiscence in “Imposter” then serves not only to create tension and confusion and to sustain narrative exposition, but also to construct fake as real, both categories of which seem immediately suspect because we are plunged into a world we feel increasingly unfamiliar in.

Apart from memory, or the mind more generally, bodies are also suspect because they can be technologically reproduced. “Imposter” calls for some heightened measure through which to tell real people apart from their reproductions. The need for such a measure is imminent, not only when the fake Olham is being questioned by Nelson and the others, but also when they go into the woods and see the real Olham’s body. The blast is the shocking result of the fact that no such measure actually becomes available. It is further hinted in the story that these measures are growing more and more imperfect because technological reproduction is being perfected. Olham himself, after all, switches from trying autobiographical memory to convince his captors of his authenticity to suggesting “an x-ray examination, a neurological study” (196). But since he suggests these measures himself, it is hinted that none of them would suffice. In fact, it becomes clear that technological advancements in “Imposter” have rendered proof of (human) identity based on memory as uncertain as proof based on the body.

The prevalent themes in “Imposter” are derived from and more diverse than technological innovation. “Imposter” uses new technology to allow memory to be reproduced, calling into question the location of authentic memory. The short story further uses technology to create artificial bodies that are near-indistinguishable from organic ones. The fake Olham’s use of technologically reproduced memories, mind and body together appears to make him human. But real and fake are destabilised as categories by Dick’s introduction of fake memories, minds, bodies and humans. And ultimately, Dick pulls secure ground from under his readers in “Imposter” to draw the contours of a world in which memory, mind, body and humanity intersect at the vanguard of (fictional) state-of-the-art technological development.

Research Question

My introduction of science-fiction and Philip K. Dick revealed strong qualities related to science-fiction and Dick that will play a role throughout this thesis. Additionally, “Imposter” exposed themes such as memory, mind, body and humanity that are more diverse than technological innovation generally and the mark of Dick’s personal brand of science-fiction.

The research question this thesis will aim to answer is the following: How do a selection of his short stories⁴ and *Do Androids Dream of Electric Sheep?* situate Philip K. Dick in the context of essentialist and more posthuman views on the faculty of memory and posthuman views on the relation between body and mind?

This thesis looks at three views on the faculty of memory. One view explores the faculty of memory’s functions through metaphors or materials, while another locates the faculty of memory in the organic and social human body, and a third locates it outside of the body, in the media. The faculty of memory will therefore be primarily understood in this

⁴ Analysis will mostly consist of considerations of Dick’s fiction. Comments on Dick’s non-fiction were used to introduce Dick as an author but will not be referred to later on.

thesis as a capacity for the storage and retrieval of information. And unless discussions in this thesis explicitly deal with alternative understandings of memory, such as particular instances of recollection, this is what will be meant, and phrases such as *this (specific) view on the faculty of memory* will be abbreviated to simply *this (specific) view on memory*.

Two views on the relationship between body and mind⁵ will be analysed. One of these views sees the disembodiment of the human mind from a feeble, nearly expired body as a necessary liberation, while the second one sees the body's relation with the mind as an accident of human development rather than a necessary condition of life. These views, together with the perspective on memory that locates it in the media, are defined by what this thesis understands as *posthuman*, meaning an adjective that describes the relation between memory and technology, the relation between body, mind and technology, as well as the philosophies that have emerged as a result of perceived changes or states of these relationships. For this thesis, these perceived changes or states pertain to man's dependence on the media, the organic and inorganic hybridisation of the body and the scaffolding of the mind specifically, as well as the role of technology in human society more generally.

Despite the carefulness with which these concepts will be unpacked through theory and traced through fiction, exposition will not allow theoretical perspectives to transform Dick's fiction into a mere sounding board for critical issues. Rather, Dick's contributions are more valuable than that since Dick's reception by theorists will also play a role. Therefore, this thesis will not only seek to reveal how Dick anticipates more recently developed theories in his fiction but also to show how the value of Dick's contributions is defined by his authorship.

⁵ The title of this thesis and the headings of subchapters two and three feature *the posthuman condition* only because the full meaning this short sentence intends, namely *the posthuman relation between body and mind*, would simply be too long. Throughout the rest of this thesis, however, the full phrase will be used, although its repetition will be avoided.

Answering the main question will have relevance first and foremost for discussions on the value of Philip K. Dick and different views on memory and the posthuman relation between body and mind. More broadly, this thesis might act as an important argumentative step in future projects that attempt to emphasise science-fiction's and the science-fiction author's relevance in theoretical debates, even if they do not have anything to do with memory or posthumanism.

Introducing the Theoretical Framework

One of the views on memory up for discussion deals with metaphors and materials of memory. Metaphors of memory are often used by theorists or philosophers who have no background in neurology or neuropsychology and wish to describe functions of memory. Examples of such philosophers are Plato and Alan Turing, the first of whom is famous and needs no introduction, the other of whom is a computer scientist. Douwe Draaisma, Professor of theory and the history of psychology at the University of Groningen and author of the highly successful *Metaphors of Memory: A History of Ideas about the Mind* (2000), cites examples from Plato, Turing and others to give an overview of how memory has been conceptualised metaphorically in terms of inscription, retention, etc. *Metaphors of memory* in this sense rely heavily on the materials these metaphors are built of, say, sand, for instance, or glass, or stone, and the individual properties of these materials. Softness makes something more prone to inscription but also to fading, while hardness maintains strong retention but is too sturdy to affect much change in. Conceived in this way, metaphors of memory act as vehicles used by man to further understand the workings of memory and the materials of these metaphors partly make this possible.

Metaphors of memory have great symbolic relevance, but precisely because they are metaphors, their literal importance is precarious. Moreover, different views on memory

depend on the material world but also, and more importantly, on *organic embodiment* in the brain. Theorists such as Alan Baddeley, a Professor of psychology at the University of York famous for his contributions to short-term memory, make this clear either explicitly or more implicitly. Alternative ideas such as the old-fashioned contentions that memory is based in spirits or muscle tissue are simply not respectable any longer (Clark 43), not in the least because MRIs and other sophisticated equipment have revealed the approximate areas of increased blood flow during mnemonic stimulation (Schacter 7). But although these technologies seem to pinpoint memory to a specific location, it is increasingly understood today that the processes that create remembrance in the brain are dependent on a multitude of brain regions (Schacter 5). This view on memory is then defined by *organic* embodiment, but also by the advent of *connectionism* as the accepted theory. Where older views have theorised memory as locked to particular areas of the brain, connectionism liberates memory from the spatial restrictions of a single location and locates memory in networks and interrelated mechanisms.

Connectionism also involves *the senses of the human body*, which can be seen as having a direct impact on the construction of memory. Logically, the involvement of the senses makes sense. Without them, episodes of memory consist of nothing in particular, and experiences leave no impression on the subject and cease to be experiences as such. Daniel Schacter, Professor of psychology of memory at Harvard University and author of *Searching for Memory: The Brain, the Mind, and the Past* (1996), speaks about encoding and decoding processes, and how sight, hearing, and other senses affect these processes. He argues that the senses not only help construct the initial memory images that are encoded in the brain, but that sensory, experiential input received after encoding a memory image can affect the quality of the memory during the decoding process as well (71). Subjective experience then starts to matter more and more, defeating some of the more organic qualities in essentialist views on

memory and shifting focus to more *social* implications, even as the brain and the environment begin to act together to create remembrance.

The importance of the senses and the environment and the crucial interface between both is emphasised further in posthuman views on memory. Landsberg, who is Associate Professor of U.S. history at George Mason University and author of *Prosthetic Memory: The Transformation of American Remembrance in the Age of Mass Culture* (2004), makes use of the space created by theorists who argue for the relevance of the senses in the creation of memory by proposing that foreign memories can be internalised as one's own. Landsberg further hints that memory might not only be seen as ownerless but also as moving through media (Landsberg 20) and as acting together with *sensuous reception* to allow the subject to be influenced by freely travelling memories. This posthuman view on memory then touches upon commercialisation and commodification as well, since those powers allow prosthetic memories to circulate.

The first *posthuman relation between body and mind* this thesis discusses has been proposed by Jean-François Lyotard, a French philosopher and author of *The Inhuman* (1988),⁶ who defines the human body not as an inherently flawed yet crucial container of memory but mainly as something to overcome. The body, or so Lyotard argues, could not possibly survive the imminent solar catastrophe, and even miniscule changes on a cosmic level could end the existence of the mind. This would lead to the loss of innumerable generations of data and humanity. Lyotard views what he calls man's hardware as debilitating and holding back man's software, which, he thinks, should be able to jump bodies, overcoming the limitations of the (organic) human body's life span. And although Lyotard argues that finding an adequate substitute for the human body that is less frail is of great importance, he admits that technology is not yet at the level necessary to allow such moves.

⁶ *The Inhuman* was originally published as *L'inhumain*.

The second posthuman view this thesis analyses is that the human embodiment of the mind is seen as an *accident of evolution*, rather than an unconditional premise that must be dealt with if man is to move forward (Hayles 3). Katherine N. Hayles, Professor of literature at Duke University and author of *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (1999), propounds this view, which is more radical and opposes the more essentialist views on memory that see the embodiment of memory by the human body as a necessity. Hayles sees the encapsulation of memory through organs, skin and bones as accidental, and she reasons that a distinction between that which is real and that which is fake must no longer be made. Hayles adopts the perspective that an outlook such as Lyotard's, in which the effort to overcome the mind's unique relation with the body is crucial, necessarily gives the body too much credit and leaves containers that are perhaps equally suitable but not our default setting unacknowledged.

In this thesis, theoretical perspectives will occupy one side, while Dick's fiction will occupy the other. A connection between both sides will be established, proving that Dick has conceptualised memory and posthuman relations between body and mind in ways that are similar to the ones explored above. The relationship between Dick's fiction and theoretical views will then be further defined by the references many theorists make to Dick's fiction and the edge that Dick, as an imaginative author of makeshift realities, has over theorists. It will ultimately be argued that Dick possesses a personal brand of science-fiction that has particular value for the theoretical perspectives to be discussed and leads to especially fruitful engagements when Dick's powers of conceptualisation and imagination are fully used to envision certain ideas.

Methodology

As stated before, this thesis will focus on a selection of Dick's short stories and *Do Androids Dream of Electric Sheep?*. A number of reasons can be advanced to justify this focus. The first reason has to do with scope and, therefore, with the limited length of this thesis. Apart from scope, content has to be mentioned. The elected short stories have been arranged to fit into one of two major categories, depending on whether they deal with views on memory or the relation between body and mind. They belong to the first, third and fifth volumes of *The Collected Stories of Philip K. Dick*, anthologies of sorts that contain, on average, around twenty-something stories. "Progeny" (1954), "Some Kinds of Life" (1953), "The Electric Ant" (1969) and "We Can Remember It for You Wholesale" (1966) have been chosen because they exemplify certain understandings of memory that theorists such as Draaisma, John Sutton, Schacter and Landsberg also argue for, while "Mr. Spaceship" (1953) and "The Infinites" (1953) are included because they offer valuable reflections and commentary on the relationship between posthuman bodies and minds in Lyotard's idea of the solar catastrophe and Hayles' posthuman subject. These stories are important because they can be discussed together with individual theories. Because they can be used selectively for evidence, they each manage to say something that *Do Androids Dream of Electric Sheep?* only generally hints at. Other stories such as "The Cookie Lady" (1953), "Paycheck" (1953), "Meddler" (1954), "Project: Earth" (1953) were considered but ultimately rejected because they did not meet the aforementioned criteria.

Whereas the stories above go in-depth into different treatments of memory and posthuman views on the relation between body and mind, *Do Androids Dream of Electric Sheep?* treats these issues as themes to support a larger narrative. In the novel, for instance, essentialist views on memory play a specific role, and more flexible, posthuman relations between the body and the mind play a specific role, and both roles seem to be crucial to the novel's existentialist theme, one that is less present in Dick's short fiction. In this respect, the

decision to use the novel was an easy one, since it manages to dramatize elements of technological reproduction through the themes of memory, body and mind by questioning what humanity really is. But *Do Androids Dream of Electric Sheep?* was also chosen because other novels simply did not meet the criteria of either having to do with both memory and the posthuman relation between body and mind on some level. Examples of such novels include, but are not limited to, *A Scanner Darkly*, *VALIS* (1981), and *Flow my Tears, the Policeman Said* (1974), *The Man in the High Castle*, *The Simulacra* (1964), and *We Can Build You* (1972). And although it could be conceded that another novel should have been included, the presence of the short stories somewhat helps mitigate this lack of a second novel, and *Do Androids Dream of Electric Sheep?* is undoubtedly both of crucial and singular importance to any project that attempts to gain an understanding of Dick's views on memory the relation between body and mind, and humanity in the age of technological reproducibility.

Structure

This thesis will be composed of three main chapters. The first chapter deals with different views on memory and, in doing so, discusses functions of memory through metaphors and their materials; as located in the organic human body and the social human body; and as located outside of the body. The aim of this chapter is first and foremost to give an overview of related perspectives on memory in memory studies, neurology, neuropsychology, sociology and media studies and to link these discussions to Dick's fiction.

The second chapter introduces posthuman views on the relation between body and mind and, in doing so, covers the relationship between the body and the mind in the modern age. This chapter will explore theories of this topic ranging from one that portrays the disembodiment of the mind as a necessary step to achieve long-term survival to seeing the mind as completely coincidentally attached to the body.

The third chapter considers *Do Androids Dream of Electric Sheep?* from the perspective of its depiction of memory and technologically reproduced bodies. The common ground between these themes will become clearer and will be analysed as a source of existential anxiety on the parts of androids. Concluding statements will tie these related, thematic issues to narrative elements in the novel.

CHAPTER ONE

METAPHORICAL, EMBODIED AND POSTHUMAN MEMORY

Introduction

This chapter will present a reading of theoretical, memory-related issues by centring on three perspectives. Draaisma gives an overview of perspectives that use metaphors and materials to define functions of memory, while Schacter's, Baddeley's and others' perspectives locate memory in the organic and social human body, and Landsberg's perspective locates memory in the media. Each perspective will be read alongside examples of Dick's fiction. For the first subchapter, this means the inclusion of "Progeny" and "Some Kinds of Life," stories that incorporate metaphors and materials of memory in interesting ways.

Although a progression will be observed in this chapter as a whole, from one treatment of memory to the next, it is not the aim of this chapter to argue for a similar progression in Dick's fiction. Dick is not a theorist who propounds a succession of views in unambiguous ways; rather, he will be treated as an author who explores a variety of views on memory concurrently and whose value must be appraised as such. The same will hold true in chapters two and three for their respective topics.

Section One: Memory's Metaphors and Materials

Although the value of metaphors for discussions on memory might be debated, it is generally agreed that metaphors can constitute interesting ways of thinking about memory. David Rumelhart and Donald Norman, renowned cognitive psychologists and scientists, thought in the 70s that what would later develop into today's neuropsychological theories could be a viable alternative to spatial metaphors of memory (Sutton 15). Not only did these prominent scientists consider spatial metaphors as valuable to discussions on memory; they thought that

more scientific, neurophilosophical theories would be interesting additions to metaphors, not the other way around.

Draaisma considers metaphors of memory to be important additions to more scientific theories as well. He points out that debates on memory have featured “an enormous variety of physiological processes . . . [although] the core remains the same” and that metaphors of memory have the ability to remedy this homogeneity somewhat (232). Draaisma discusses a variety of metaphors and the qualities they, in turn, underline. He gives an overview of existing metaphors of memory that provide a way of thinking about inscription, including Plato’s wax tablet, the properties of which are derived from the wax that builds the tablet. Wax tablets were known to be different from clay tablets, “which became hard” and could therefore not be “reused” (24), and people who possessed great capacities for remembrance were described as having a “mental wax” that was “smooth and worked to the right consistency” (25). In turn, the mental wax is too soft in people who possess “good learning ability” (25) but who are also forgetful. Draaisma argues that the process of inscribing wax tablets might be compared to the biological type of writing that happens in the brain.⁷ Not only does the consistency of wax change the properties of memory and potentially alter the way people who possess those memories are viewed; metaphors of memory such as wax tablets might actually be closely related to the brain as far as their functions go.

Draaisma argues that something similar is true for seeing books as metaphors of memory. He treats books as more advanced as well as simply different from wax tablets. The idea of books as metaphors of memory underlines the inscription of memory in a different way than wax does. Since the printing press was geared towards uniformity and creating exponentially greater output, books possess a ubiquity and capacity for inscription that surpasses that of wax tablets. Draaisma also argues that views on memory that incorporate

⁷ An example of this is Schacter’s engram, which features in subchapter two of chapter one.

metaphors often attempt to “represent the inner space of the memory as an actual space” (44). And while books occupy a deceptively small space in real life, they can be opened and their pages can be turned so that their spatial element is important.

The same tendency for spatiality can be observed in other metaphors of memory such as the bird aviary, or so Draaisma points out, in which man owns an aviary filled with birds of different shapes and colours, and finding the right memory is like catching the right bird (27). The idea of an aviary as a metaphor of memory underlines spatiality more so than a book, since it is a closed-off space and catching birds, or remembering, is dependent on the birds not flying away. The birds are forced to occupy a certain space, and the boundaries of the aviary that are a thin web of spun metal drawn over high arches remind one that memories are similarly enclosed as well, except by the brain, since the brain can contain memories but cannot be permeated by them, and it might be described as “the sole and essentially insulated engine of [the] mind” (Clark 43).

Other metaphors of memory underline safekeeping as an additional property that metaphors of memory might have. Man has always felt compelled to somehow fix memory “in secure artificial locations, random access systems of images for the executive self to extract at its pleasure” (Sutton 13). Metaphors of memory such as boxes exemplify this. In their non-metaphorical form, boxes can be used to store people’s documents, letters, photos and other keepsakes. They can be marked so that their contents could be sorted, and having multiple boxes helps in keeping different sorts of contents separated. But boxes also protect their contents from outside influences, much like a person’s skull protects the vulnerable brain from trauma to an extent.

One of the questions that arises in the face of this discussion’s growing multitude of metaphors of memory is whether a hierarchy could be constructed based on which metaphors provide the most scientifically faithful way of thinking about memory. In this sense, Draaisma

privileges the metaphors of the computer and Freud's magic writing pad. Valuing the computer as a metaphor of memory is, in a way, obvious. It often has digital solutions for dictionary access available, it is embodied by a sturdy metal outside that protects its insides, and it structures its files and subdirectories in a very spatially efficient manner. In a way, this goes without saying, as microchips, processors and other computer components seem to be getting smaller and smaller by the year. But despite the efficiency that computers as metaphors of memory exhibit, Draaisma favours Freud's magic writing pad as the most ideal metaphor for human memory (233).

Especially the pad's materials seem to place it in a higher category for Draaisma. Combining the materials of different eras, the pad is composed of a layer of wax, which is covered by a wax paper sheet, which is in turn covered by transparent celluloid sheet (7). The pad works as well as it does since inscriptions remain on the covered wax, while they can be erased from the covering paper by simply pulling it off of the underlying material. Since wax has a greater potential for long-term retention here than the other material, and the most recent inscriptions can easily be erased from the paper layer, the writing pad as a metaphor of memory emulates the endless capacity for remembrance human beings also seem to possess while further supporting a distinction between long and short-term memory. The celluloid sheet then makes the surface smooth and protects the wax paper from wear and tear.

In a way it is not hard to see why Draaisma favours the writing pad as a metaphor, since it simply conveys more properties that are human-like than computers do, especially in the area of capacity for retention. Digital storage runs out at a certain point, after which more storage has to be bought, while the writing pad will always continue to contain some semblance of what has been written on it. Since the wax layers bear the brunt of many inscriptions over time, stored engravings fade beyond legibility. But in another way, this shortcoming also reminds one of human remembrance, since human beings can remember

many things though their capacity for total remembrance is fallible. The past gets distorted as time passes, and things are forgotten, and newer inscriptions on Freud's writing pad make past ones fade away.

Draaisma's overview and analysis of different metaphors of memory has firstly shown how metaphors of memory might be used to gain insight into the workings of memory, and secondly, that at least some of these metaphors of memory – Freud's writing pad much more so than boxes, for instance – owe their properties primarily to materials. But technology is still expanding its domain at a rapid pace, and today's metaphors and materials of memory might not be tomorrow's, and so it might be interesting to look at instances where old items can make new metaphors or new materials are proposed. In the real world, conceptualising such innovative metaphors and alien materials of memory might be difficult, for the technology-related reason given earlier. But in science-fiction, technology is often conceptualised as more variable and powerful than in the real world, and in Dick's science-fiction, this is often the case especially so. Therefore, analysis will now turn to two of Dick's stories, paying specific attention to instances where metaphors of memory and materials of memory seem to play a role.

Dick explores metaphors of memory in an interesting way in his short story called "Progeny." The short story is first and foremost a meditation on the mechanisation of the process of upbringing children. From birth until they reach the age of career differentiation, children in "Progeny" do not have any human contact at all. This is more efficient, or so robots argue, since emotions, in the story, spoil children's ability to develop an objective mode of thinking and a scientific frame of mind. But despite marked improvements in efficiency, the robot-led programme seems to have downsides as well, and parents in "Progeny" are beginning to wonder whether their sons and daughters are not lacking something that is essentially human.

Of particular importance for the present discussion is 2g-Y Bish. Bish is the doctor of the Doyle couple who have just had a child. He is a cold robot who is also portrayed as such. When Ed storms in to see his wife and son, Bish remarks that he may not do so since the newborn must be put in “the proper educational division” right away (67). Bish convinces the father that he must wait until the age of career differentiation, Ed objects but finally relents, and the story jumps nine years which Ed spends in outer space.

Despite the passing of time, Bish’s memory is infallible and his brain’s “relays and memory banks clicked, narrowing down the image identification, flashing a variety of comparison possibilities past the scanner” (68). Doyle makes it clear to the robot that he wants to see his son, and the robot doctor in turn calculates the possible outcomes, depending on whether Doyle can be trusted not to be too emotional with Peter. And in the meantime, Bish’s “photocell brain whirred, operating at maximum velocity. Switches routed power surges, building up loads and leaping gaps rapidly” (69). 2g-Y Bish arrives at the conclusion that Doyle can be trusted to speak with his son, but only provisionally.

Peter is nine years old, and at the top of the field of bio-chemistry. Bish remarks that, since the inception of the programme, Peter has shown the single most remarkable growth they have observed. His performance is outstanding, both in his “integrated faculty for the assimilation of data,” as well as the “construction of theory” and “formulation of material” (69). But when Ed goes to pick him up, he finds he cannot relate to his son the way he would have liked to. When Ed says he travelled a long way to finally see him, Peter responds affirmatively, adding that the length of the trip is 4.3 light years, and when he tries to establish some level of intimacy by saying he had only seen him once, just after he was born, Peter replies by saying that he is aware of that, since Ed’s visit was “in the records” (71).

In “Progeny,” metaphors of memory are located in Bish’s head. Firstly, there are the robots, whose heads appear to be composed of an integrated system of photocells, switches,

and studs that act in concert by pushing, pulling and whirring to produce highly efficient output. This efficiency is reflected in the upbringing robots provide as well. After all, Peter integrates, assimilates and constructs much like an assembly line or a computer programme would. Secondly, Bish's memory is described as a bank. And although this is a spatial metaphor, it also underlines qualities of retention and safekeeping like glass bottles do. The photocells and studs and memory banks that are part of Bish's brain seem to inform the way robots' minds operate – for they are geared towards effectiveness, precision, safekeeping and retention, but they also convey a thematic fear: the fear that the transformation human infants are forced to undergo is so radical that technology cannot be portrayed as anything but a threat.

“Progeny” is an example of a story where Dick chooses to utilise metaphors of memory for constructing meaning. The studs and knobs in the story sustain these metaphors but do not really constitute materials in the way Draaisma speaks about them. But in other stories, Dick purely uses materials to envision memory. An interesting and striking example of this tendency plays a role in “Some Kinds of Life,” which revolves around the Earth as a force that has established colonies all over the galaxy for gaining extra-terrestrial resources. To colonise these different parts of the universe, the short story envisages that wars have to be fought for which the government needs military power. This is where Earthlings in the short story come in, since, slowly but surely, not only men, but women and children are being forced to join the military.

“Some Kinds of Life” starts with the government calling Bob Clarke to fight, and Bob's wife Joan protesting against his departure. Her reluctance to let Bob go turns out to be justified, for Bob never returns from Mars. In Bob's place, his son Tommy becomes the man of the house and is coerced into the military as well. Tommy would have been too young to join, but as the supervisor points out, “they've changed the ruling. We took quite a beating on

Mars . . . Have to dig deeper from now on” (76). But despite the high number of victims, Erickson argues, “we have a lot of fun drilling and trying out new equipment” (76). Tommy never makes it back either, after which Erickson comes for Joan. Desperate now, she pleads with Erickson, asking him who is going to be left on Earth if its men, children and women will be gone. Erickson responds, however, by saying that “we have to hold these fronts. The stuff must be kept coming in” (78).

“Some Kinds of Life” goes beyond real world resources such as iron, steel or wood, allowing Dick to imagine that Earthlings have to go to war to secure completely alien, mysterious materials with impressive qualities. These materials sweeten the pot for Earthlings, provide a reason for the war effort, and evidence the futuristic, visionary qualities in Dick’s writing. They include examples such as kryon ore from Venus, rexeroid from Mars, gleco from Callisto, trektone from Europa, iderium from Neptune, ambroline from Mercury, and nymphite from Saturn (79), and they have diverse purposes, with some used to automate driving cars, open front doors through pressure sensitive tiles and create video screen tubes, while others are used for making self-reporting newspapers, specialised kitchen units and automated skill aptitude testing. Most interestingly, however, there is lonolite from Pluto, which is “the only metal with true retentive ability” (79).

Characters in “Some Kinds of Life” use the exotic materials Dick invents in the larger structures that hold the more luxurious parts of everyday life together. One material signifies ease of transportation, for instance, while another takes away the pressure and responsibility of developing tests to assess certain skills. And like these substances, lonolite is also used in bigger technologically enhanced constructs to create more complete products. Similarly, lonolite is ultimately responsible for “constructing the memory banks of the calculators” (76) and providing qualities of retention, without which computers would be lost.

The examples listed above show that materials “Some Kinds of Life” act much like metaphors do in “Progeny,” only in a more literal way. By introducing metal as having retentive capabilities, “Some Kinds of Life” explores a way of locating memory in materials in other ways than through metaphor. No whirring of wheels is needed or indeed offered as some kind of explanation for the workings of the mind. Rather, lonolite is the material manifestation of memory, which might explain why it is such a sought-after resource in the story.

As reflections of Draaisma’s overview of perspectives on metaphors and materials of memory, “Progeny” is highly illustrative through Bish’s brain, whose actions and efficiency are metaphorically represented, and “Some Kinds of Life” is very revealing because it imagines that materials might capture memory. As additions to Draaisma’s discussion, “Progeny” shows that metaphors of memory might be located in the heads of technologically reproduced human beings and might therefore be inside, rather than outside the body, and “Some Kinds of Life” envisions that memory might actually be encapsulated in raw materials. Both stories reaffirm Dick’s potential as an inventive writer, either because he bases his stories’ metaphors on real-world items, like in “Progeny,” or because he invents alien materials, such as in “Some Kinds of Life.” The next section builds on this by discussing less metaphorical, more scientific perspectives that locate memory in the organic and social human body.

Section Two: Memory in the Human Body

This section will build on the previous one by considering the human body as a site of embodiment on the one hand and as a liberation of the constraints that essentialist views on the location of memory imply. This will be done by (1) giving an overview of critical theories that locate memory in the brain, and (2) providing a summary of more relational perspectives

on memory to do with the social body. As such, the mapping of the brain through MRI scanners, for instance, will help explore the embodiment of memory in the organic brain as something that is established but problematic because of more encompassing theories of brain functions, while theories of subjective experience and the construction of memory in a world that is interactive will pave the way to discussing more posthuman perspectives on memory in the final subchapter.

Technological innovation has enabled science only in the modern age to make certain discoveries. Tests using sensory cues relying on perception and cognitive processes have been used to expose parts of the brain that act to achieve certain aims. Also, the diagnosis of diseases related to amnesia or other pathologies of memory are dependent on the workings of imaging technology. Through PET (or: Positron Emission Tomography) scan studies, scanners provide “a precise reading of blood flow in localised brain regions” (Schacter 52), while functional MRIs (Magnetic Resonance Imaging) similarly measures blood flow, but supposedly with less accuracy than PET scans, which still count as “the most advanced of . . . brain scanning techniques” (52).

Although a brain looks deceptively homogenous, studies using the aforementioned imaging options have been able to divide both hemispheres of the brain in distinct areas,⁸ identifying numerous subsystems and microstructures through their activation patterns. What is more, it has become apparent through the use of said technologies that “the cognitive processes identified by memory researchers can be related to specific regions of the brain” (55). As early as 1992, neurologists Larry Squire and others used fMRI scans to reveal how select areas in the hippocampus area of the brain are crucial to the encoding process of memory formation (67). Since then, hippocampal involvement in the retrieval stage has been shown by a host of other neurologists, including well known cognitive neuroscientist Endel

⁸ Discovered areas in the brain include the frontal, parietal, occipital and temporal lobes.

Tulving and others in a 1995 study on a number of PET scans assembled from various conducted experiments. In response to those studies that make a tenuous connection between remembrance and the hippocampal region, more recent studies have appeared, often yielding even more precise results. One study analysed the conclusions of 17 studies based on fMRI evidence and found that “increased activity in the hippocampus and the parahippocampal cortex predicts subsequent memory strength” (Wais 3185), revealing that the parahippocampus more specifically embodies memory. These findings were arguably echoed in 2004, when a study concluded by revealing “preferential activation” in the right parahippocampal gyrus (Hayes, Ryan, Nadel et al. 885), and underlined once more in a 2009 study, which revealed that subjects’ brains showed “greater activity within the right hippocampus and the parahippocampal gyrus” (Baumann, Chan and Mattingley 2816).

But despite the more and more precise findings of activation patterns and the narrowing down on smaller and smaller regions where memory could be said to reside, conclusions based on very precise findings in the field of neuropsychology always have to exhibit a degree of caution. It is not surprising that the 2004 study concluded by suggesting “a specific role for the hippocampal complex in the retrieval stage of spatial-location information” (Hayes, Ryan, Nadel et al. 885). More detailed findings lead to smaller areas in the brain but also to the realisation that memory’s activation patterns depends on what is remembered, what stage of remembrance imaging technologies illustrate, etc. The study that analysed the findings of 17 others suggested that there is a link between the brain’s sites of embodiment and differences between the force of remembrance (Wais 3185). Despite the spatial accuracy with which memory seems to be located in the brain, a growing multitude of findings keep cropping up that do not necessarily make the drawing of specific conclusions on the embodiment of memory in the brain easier. And when more different areas of the brain are

mapped, tagged and labelled, the footing of the lion's share of already established findings becomes shakier and shakier.

Scientists who have attempted to locate memory in (small parts of) the brain have had to mitigate their findings based on the interconnectedness of certain areas of the brain and the processes they supposedly stand for. This tendency in brain science has gone hand in hand with the need to accommodate some of neurophilosophy's more promising theories. Amongst these theories is connectionism, philosophy's answer to the problem of the intricately dependent brain functions partly explored above. Connectionism was first described in McClelland's and Rumelhart's highly acclaimed collection of essays on cognitive psychology, "language processing, categorisation, and decision making" (Smith 893), not only as a reaction against computational theories, but as a new way of thinking about issues such as brain activation altogether. McClelland's and Rumelhart's collection was hailed the PDP (or: parallel distributed processing) bible (Boden 946), and it explains that the connectionist model "contains many simple processing units, interconnected by unidirectional links that transmit activation" (894). Activation of units is not binary, but continuous, with values between zero and a maximum (895). Since these values are rather simple on their own, they only attain a certain complexity from unitary action in networks, or patterns, of activation (895). These aspects tie into connectionism's second point of importance, which is that the relationship between individual units and larger structures of activation is one of distributed representation (895), which, in turn, entails that single units have no set value. They are either part of the input or output processes, or they constitute links between those two ends that are not visible to man, and they gain their meaning from their interaction with other units (895).

Although the descriptions above are very general, the ramifications for memory more specifically remain largely the same, namely that "there is no discrete location for each

representation” and that “the whole network of connection weights is a single representation that contains information derived from many past experiences” (895). What is more, “the gross activity pattern of a simple network (the whole set of individual activation values) is determined by the combination of the existing pattern of connectivity, the weights of these individual connections, the present activation value of the units, and the present inputs to the system” (Sutton 19). These patterns of unit activity might best be understood as a flexible yet resilient web of neurons that, depending on the configuration, encode great numbers of engrams. The web is then composed of different units that have different weights, and placing more weight on one point, by making new memories or gaining experiences that change existing memories (McClelland 69), changes the position of many other points (Smith 895).

Despite the fact that the areas in the brain where memory is located have somewhat been identified, other insights have initiated an on-going reconceptualization of memory that moves away from attempts to locate it in a single space. Scientists nowadays do not view memory as something that acts and reacts alone, in scraps of segregated organic tissue; even as memory is located in highly specialised areas of the brain it is always already in contact with other pieces of tissue that do similar things. This means that memory can also be viewed as less insulated from related brain parts and processes than the restrictions in extremely specific studies would suggest.

Connectionism was introduced above as a model of memory in the brain, but its general nature also lends itself to application in other, related fields of study. In arguing against a model of cognition that is based on the micro structures that enable computers to function, for instance, Tim van Gelder argues that human cognition is defined by great variation in the modes of engagement with the outside world (380). Van Gelder sees man as having the unique ability to change its interaction with the environment, depending on the environment’s changes (380). Furthermore, although he argues that there are plenty of models

of flexible, dynamic cognition that are not connectionist, Van Gelder also concedes that connectionism has a special affinity for that which is dynamic (370).

According to Van Gelder, human beings have a peculiar talent for “skilful coping” (381) and owe part of that talent to the flexibility of cognition. It is not hard to think of real-world examples that confirm Van Gelder’s statement. It is very well known, for instance, that when a man or woman performs a hand stand and remains in the upside-down position for a certain period of time, the brain adapts through the eyes, and the view of the room topples one-hundred-and-eighty degrees as the brain corrects itself. Another famous example is, for instance, that when a man is plunged into darkness, he will slowly but surely get used to the shadows and start to perceive the outlines of things he saw previously. Cognition works together with the brain to adapt to the flux of environments, and this is, in general terms, what Van Gelder seems to be referring to when he speaks about coping skills.

Schacter adds to the debate on flexible cognition by acknowledging first and foremost the neuroscientific truth that “there is no single location in the brain that contains the engram of past experience” (66). The engraving that is left in a connectionist brain when a new memory is created cannot be traced to a singular, homogenous patch of brain tissue, as we have seen above. Schacter also mentions that “our memories are not just bits of data that we coldly store and retrieve, computerlike” (4); rather, the existence of some memories is bound to affect others and be affected by them as well, and the processes of both encoding and decoding engrams depend on received cognitive input. In this way, brains “hold on to fragments of sensory experience – bits and pieces of sights and sounds from everyday episodes” (66) – fragments that somehow have to be made sense of so that “the retrieved memory is a temporary constellation of activity in several distinct brain regions – a construction with many contributors” (66).

The contributors that are responsible for memory allow the brain to navigate mutability with flexibility and fragmentedness with subjectivity (57), relying heavily on the environment as something that informs subjective remembrance and episodic memory.⁹

Schacter remarks that “there is more to experience than merely retrieving different kinds of information” (16) – namely a certain “conviction that this episode is part of your personal history, related to events that came before and have occurred since” (16). Cognition in this way provides a constant re-evaluation of the images and scenes we have retained from the past, even as the human drive for continuity or wholeness acts as a buffer to this tendency.

A different but related exploration of memory, its environment, and the relationship between the two has been argued by Susan Bluck, Nicole Alea, Tilmann Habermas and others, who have argued for three functions of autobiographical memory. Apart from functions of autobiographical memory that include guiding “present and future thought” and sustaining a “continuity of self” (Bluck, Alea, Habermas et al. 93), the more important one for this discussion is aiding in the “developing, maintaining, and nurturing [of] social bonds” (94). Amongst the many things man remembers there are indeed those that facilitate engagements with others. We remember not only inside jokes and secret handshakes but also dates and occasions that are important and we cannot miss. This social function of memory is especially notable because it explores the other side of the relationship Schacter comments on. For Schacter, what occurs on the inside is informed by outside influences, while for Bluck, Alea, Habermas et al., engagement with the outside world is more important.

Taken together, Bluck, Alea, Habermas et al.’s and Schacter’s theories complete each other in a way, since they comment on different ends of the same dynamic. On one level, the subjective experiences needed in interpersonal relations aid in the construction of memory, while on another level, memory is necessary for fostering the interpersonal relations that are

⁹ Episodic memory means the personal recollection of an event.

(partly) responsible for making subjective experience possible. The internal, organic encapsulation of memory has a certain relationship with the external, social framework in which memory is located, and the effect is that memory might be described as what Sutton calls a “single unified system” (qtd. on 5), relying on the relationships between “the nervous system, body, and environment” as constantly reacting components (qtd. on 5).

The implications of Sutton’s unified system theory of memory problematize the determinism that figured earlier in this chapter and imparts more license in theories of memory that incorporate the media or the environment. Making use of that license from the perspective of media studies, José van Dijck argues for what she calls mediated memory, which takes into account the influence of the media in the restructuring of human memory’s relationship with outside sources. Van Dijck criticises “the tendency to discern memory as an internal, physiological human capacity and media as external tools to which part of this human capacity is outsourced” (Van Dijck 15), further adding that this distinction leads to an “implied hierarchy between external and internal memory” (19).

Environmental influences in Sutton’s unified system theory of memory similarly create a space for relating perspectives that locate memory in the organic body to the interactive loops between individuals that play a role in the technological mediation of cultural memory. Writing from the perspective of cultural memory, Ann Rigney notes how the dynamics of cultural remembrance have been defined for the individual in terms of “*vicarious* recollection,” meaning that cultural memory “is always ‘external’ . . . in that it pertains by definition to other people’s experiences as these have been relayed to us through various public media and multiple acts of communication” (15). Those memories that lie outside, or external to the subject, are then perhaps disowned and shared, using media as a buffer.

The perspectives in mediated memory and cultural memory explored above overlap in their ways of making use of the stand-alone, organic body in larger loops of interaction.¹⁰ Viewed as a single organic being that embodies memories and is not open to outside sources, man cannot have access to the memories that these perspectives have to offer. Man must interact and socialise with the media and the environment to enable outside sources to influence man's memory-making processes. For the individual human being, this means that his or her relationship with memories located outside the body might be stronger than the essentialist views explored earlier in this subchapter seemed to suggest. These perspectives from media and cultural studies also complete the outward-bound movement in this discussion that has attempted to locate memory in the human body, since connectionist views suggested that memories are not located in specific areas in the brain but in combinations of brain activity, and Van Dijck's and Rigney's views show that memories might be seen as moving out of the brain and into the public domain.

To sum up, discussion of theories in this section has explored memory as located in the organic and social human being. Both the organic and social explorations make it clear that there is an outward-bound movement, from decidedly embodied notions of encapsulation and so on, to more relational ones, as the connections that make connectionism work and the cognition that enables man to interact and socialise mediates what lies inside with what lies outside. These insights have led to the opening up of a space for theorists to consider the importance of social spheres and the media in the memory-making process, more on which will follow in the next section.

Interestingly enough, Schacter, as a neuropsychologist, refers to Dick indirectly by briefly citing *Blade Runner* (1982), the film adaptation of Dick's *Do Androids Dream of*

¹⁰ Van Dijck's and Rigney's statements must be bracketed by the themes of their respective debates, which primarily treat technology or the media, and not the cognitive and environmental loop that the faculty of memory as located in the human body interacts with, as an outside source. But on the other hand, technology is arguably always part of the environment and in this way a contributor to Schacter's and Bluck's comments as well.

Electric Sheep?. In order to illustrate his understanding of subjective experience, Schacter describes the scene when Deckard, the main character and a bounty hunter, goes to apply a Turing test of sorts to Rachael Rosen. The test is supposed to tell androids from humans and relies on gauging affect, which, Schacter argues, is also possible in the film because of the personal past (36). Schacter points out that, before starting the testing, Deckard “[reels] off a series of Rachael’s most personal childhood memories” (36) to show her that she is an android but is surprised when “Rachael’s emotional reaction to these memories . . . are intense” (36). Deckard did not count on the possibility of Rachael engaging emotionally with her past and, as Schacter points out, starts to think that those reproduced memories “do in some sense belong to her” (36).

Schacter links the scene above to memory studies in the real world by saying that “*the depth of subjective experience* Rachael displays is the hallmark of explicit remembering in people [my emphasis]” (36). What is at issue when subjective experience is spoken of is therefore often the degree of force and conviction associated with it. And as Deckard’s surprise and the fact that Schacter cites this surprise as an example go to show, the ability to engage with one’s past memories in such a powerful way proves something about one’s identity. In this sense, as well as in the context of this chapter in general, the next piece of fiction, called “The Electric Ant,” will prove essential, as it clearly dramatizes the power of subjective experience and relates subjective remembrance to questions of identity and humanity by negotiating inside and outside, viscera and environment.

“The Electric Ant” starts by introducing Mr. Garson Poole, the executive president of Tri-Plan Electronics in the story. Poole ends up in the hospital one day and the doctors notice that they cannot save his arm because it is artificial. Poole asks them why they cannot do anything for him, after which they tell him; he is an electric ant, or an artificial human being,

and he is in the wrong place to be put back together again. After all, human beings in the story go to hospitals, and electric ants go back to the manufacturers that made them.

Mr. Poole gets his arm reattached, but begins to wonder about things. More specifically, he becomes afraid that, perhaps, others had bought him or designed him. His technicians tell him he has nothing to worry about, but they do react with some surprise, since “there must have been signs . . . clickings and whirrings from inside [him]” (193), unless, that is, he were “programmed not to notice” (193). The fact that he might be programmed makes him feel even more panicked. The thoughts then cross his mind that “I am not free. I never was, but now I know it; that makes it different” (193).

The realisation that he has never been truly free sets him off on a downward spiral. From the factory, he goes back home and has his chest scanned for hidden devices. Amongst other things, the scanner finds “a roll of punched tape mounted above [Poole’s] heart mechanism” (194). Despite the initial belief that the punched tape is a programming tool, it is in fact a “reality-supply construct” (194), put in place to gather “sense stimuli” gathered by Poole’s “central neurological system” (194), and, as the scanner points out, “tampering with it would be risky if not terminal” (194).

A sane man, manufactured or not, would not dare touch vital body parts for fear of damaging them, but Poole is desperate and not thinking straight. Through his analyses of the ways in which altering the tape in diverse ways affects the things he experiences, he comes to see how the tape actually acts as a stand-in for human cognition. As such, remarks that “if I cut the tape . . . my world will disappear . . . because my reality, my universe, is coming to me from this minuscule unit. Fed into the scanner and then into my central nervous system as it snailishly unwinds” (195). Amongst other things, he comes to know that “solid is no, punch-hole is yes” (196), “every punch-hole covered up mean[s] the disappearance of some object in

his reality world” (197), and cutting the tape off would have “all the neuro circuits jump their gaps and short out” (200).

Poole slowly descends into insanity, as he continues to manipulate the outside things he sees from the inside. After all, his outside view is a projection from his inside mechanics, and continuing to experiment with his cognition ultimately leads him to experience the totality of the universe from his living room (201). Rather than seeing the universe when he punches new holes in the tape, however, he sees ducks and an old man, and the fact that he made them appear by altering bits inside of him makes him question whether even his wife is real or not. She might just be a figment of his mechanical body. “You’re not real” (202), he says to his wife Sarah; “you’re a stimulus-factor on my reality tape” (202).

The experimenting eventually costs Poole his life. He simply goes too far one day and finds he cannot turn back this time. Poole is buried, and he is succeeded as executive president of Tri-Plan Electronics. And after the burial, Sarah comments to the technicians that Poole was deluded and that he had begun to think that the universe was compacted inside of him. She concludes that he “had never been plugged into the real world” (204), but even as she does so, she begins to fade as well.

One of the conclusions Schacter drew from *Blade Runner* is that “compelling evidence of intense, subjective experience is what it would take for most of us to be convinced that a computer does indeed remember in the same sense that we do” (36). “The Electric Ant” reflects something similar although as an entirely internal criterion born from a sudden, complete discontinuity with the personal past. Mr. Poole’s life is suddenly deprived of all meaning, resulting in the desire to experience the totality of the universe. The experiments he conducts on himself are the result of his existential anguish as well as his knowledge that the experiences that must be gained to overcome dreaded artificiality are great. And although his

experiences are by no means perfect or absolute, they turn out to be both powerful and highly addictive.

The ending of the story suggests that the disappearance of Mr. Poole's wife is the result of Mr. Poole's perception system stopping and his decision to believe in internal criteria for authenticity. Especially the internal criterion amplifies the power of subjective experience beyond what Schacter intended. By doing so, the short story reconceptualises inside and outside by radicalising the interface that incorporates the two; Mr. Poole (feels at least that he) becomes the location of all experience in the universe or nothing at all.

"The Electric Ant" finally underlines that the location of memory is precarious. It leaves us to wonder whether there could be a time when memories are entirely located entirely outside the body. This will be discussed in the next subchapter.

Section Three: Memory as Disembodied

This section will build on the previous one by considering the media as a vital part in the memory-making process. One of the posthuman views up for discussion is that memories can indeed be solely derived from outside sources and "become autobiographical in use and improvisation, on the basis of both cultural and individual narrative norms" (qtd. in Sutton 18). The effect is that individual and cultural norms are negotiated where the individual and the media touch, and that memory spans "not just past and present, but outside and inside, machine and organism" as well (4).

Landsberg's idea of prosthetic memory generally reflects and builds on standard definitions of cultural memory. The idea of prosthetic memory operates at the interface between inside and outside, subjectivity and objectivity, individual and collective. It applies where keen awareness of the role of the media intersects with new ways of thinking about the individual and is described as memory that "circulate[s] publicly" (Landsberg 26). In

addition, the concept of prosthetic memory's propensity for public circulation is highly dependent on "an engagement with a wide range of cultural technologies" (26). The idea is that memories can be generated either through media such as photography and film or perhaps in plays or autobiographical novels. Condensed into works of art or imprinted in cultural landscapes, memories are disseminated, circulated,¹¹ and ultimately received by consumers.¹² And after reading or viewing these products, the consumer takes on these memories and experiences what other people also experience, completing the transfer.

Landsberg introduces several other important aspects of her idea of prosthetic memory by briefly summarising and interpreting Stuart Blackton's *The Thieving Hand* (1908), an interesting silent film that revolves around a one-armed beggar who occupies a lone street corner. Occasionally, people pass the film's beggar as he begs for money. One day, a wealthy man takes pity on the beggar and buys him a prosthetic arm. The beggar receives his new arm in a pawn shop and inspects it for a minute. (This is represented by a number of gestures and gesticulations on screen). Satisfied that the arm is doing what it is supposed to do, the beggar thanks the rich man and walks back again to the corner of the street. But when other people walk past him this time, the arm starts stealing random possessions of theirs. The beggar's fortune quickly turns to misfortune, and the antics of the prosthetic arm are finally noticed by an officer of the law, who arrests the beggar for thieving. It is revealed at the end of the film that the arm actually belongs to an imprisoned thief, and that this is the reason for its strange behaviour, leaving the film's spectators to wonder about the dual identity of the beggar.

¹¹ Circulation is then indeed conceived as the dissemination and movement of products, but in other instances, Landsberg suggests that artificially-created sites of memory are especially useful in transferring reproduced memories. In these cases, she refers not only to the media, but to sites created by the media's technological and reproductive capacities, lauding the potential of these "transferential spaces" for "making available not simply technologies of memory to replace living memory, but strategies and arenas within which an alternative living memory gets produced in those who did not live through the event" ("Toward" 66).

¹² Needless to say, the success of this particular loop depends very much on the media chosen, as well as the size of the spectatorship or audience of the prosthetic memory.

Landsberg's symbolic reading of the story in the short film stresses that the circulation of memory depends on consumerism and capitalism. The fact that the rich man buys the arm for the beggar intimates that people with means are in a privileged position as far as buying these memories goes. This type of circulation is not generated by the media, although the pawn shop might be read as a metaphor for mass media, especially since it seems likely that prosthetic limbs are sold all over the world with uniform measurements and features in similar shops. Moreover, the film seems to underscore that prosthetic memory has an "individual bodily component even while its mode of reception is collective" (31). This is made clear by the physical nature of the prosthetic and the beggar's need to attach memories made physical through prosthetic devices to his body. Lastly, Landsberg's readings stresses that the short film's prosthetic devices are more than prosthetic limbs, since their potential for utility only half masks the fact that they contain memories.

The individual bodily component cited earlier is later used by Landsberg to conceive of prosthetic memory as "a sensuous phenomenon experienced by the body, [as] it continues to derive much of its power through affect" (8) and to segue into media studies more clearly. What people feel when they engage with prosthetic memories, by viewing a photograph or watching a play, then becomes particularly important for the reception of cultural products, the gathering of outside experiences and the internalisation of memories that are located in the media alike. Landsberg reviews the account a nineteen-year old woman provides after seeing "a movie of pioneer days" (30). The account details that the young woman seems to yearn for the past, feeling very "unreconciled" with the forced realisation that she exists in the present while others had the privilege of living their lives in the past. Moreover, she expresses a "longing . . . [to go] to war," an awareness of "the awfulness, the futility of it," as well as feelings of anticipation, "excitement" and "glamour" (30). Landsberg points out that despite

the darker side to this woman's account, or precisely because of that, the impact of the film is profound and undeniable.

Landsberg draws on the ideas of other theorists to emphasise that the medium of film is exemplary of the significant role the senses play in experiencing prosthetic memories in the modern age. Landsberg cites "Photography" (1993) by Siegfried Kracauer, an important German author and cultural critic, when she characterises film as simply "[seizing] the 'human being with skin and hair' as 'the material elements that present themselves in film directly stimulate the material layers of the human being: his nerves, his senses, his entire physiological substance'" (qtd. on 31). Landsberg also cites Vivian Sobchack's *The Address of the Eye: A Phenomenology of Film Experience* (1992), pointing out that "cinema uses modes of embodied existence (seeing, hearing, physical and reflective movement) as the vehicle, the stuff, the substance of its language" (qtd. on 31). A person who watches a film and somehow identifies with it in the way that the woman above does is then indeed exposed to memory that is "not organically based" (26), but, as Landsberg argues, the important point is that he or she would nevertheless be able to receive inorganic memories in a highly sensory way.

Landsberg's concept of prosthetic memory ultimately opens up a space for the experience of artificially created memories. She asserts that "the 'real' and the 'authentic' are and have always been . . . an ideal state" (33) and that her concept makes it possible to experience those memories that would have traditionally been called inauthentic as "real or genuine" (17). In this sense, authentic memory is not only a scarce luxury but also something that can be overcome, and "any distinction between 'real' memories and prosthetic memories – memories that might be technologically disseminated as commodities by the mass media and worn by their consumers – might ultimately be *unimportant* [my emphasis]" (46). Landsberg thus aims for her idea to be something that is not necessarily authentic but valuable and real in a subjective way.

To sum up, Landsberg shows firstly that consumerism and capitalism are forces that sustain circulation in her idea of memory and, secondly, that her idea of memory enables people who have not lived through certain episodes in the real world to still experience them and internalise their memories. On a related note, prosthetic memory's eclectic reliance on the senses on the one hand and prosthetics on the other suggests, although Landsberg does not say this herself, that whether memories that are located in media can be internalised or not is highly contingent on many things, most of which lie outside of the reach of, say, the organic human body, and all of which evidence the importance of posthuman views on memory.

Besides *The Thieving Hand*, Landsberg supports her exploration of prosthetic memory with a multitude of titles, including *Total Recall* (1990), the film that was based on Dick's "We Can Remember It for You Wholesale," *Blade Runner*, Mary Antin's *The Promised Land* (1912), Henry Roth's *Call it Sleep* (1934), and Cecil B. DeMille's film *The Road to Yesterday* (1925), William Faulkner's *Absalom, Absalom!* (1936), Toni Morrison's *Beloved* (1987) and *Song of Solomon* (1977) and Julie Dash's film *Daughters of the Dust* (1991). Despite the fact that Landsberg is active in the field of media studies, many of these titles are not films but novels, and two of the films mentioned are adaptations of Dick's fiction. The idea of prosthetic memory then has a wider range than that of film and is indebted to fiction and Dick's fiction more specifically.

Landsberg's comments on Dick's work and films based on Dick's work reveal that she considers science-fiction to be a privileged medium. Speaking about *Total Recall* and *Blade Runner*, for instance, she says that, "as science-fiction, these films have license to explore in creative ways the ethical ramifications of prosthetic memory" (34). She focuses her analysis of *Total Recall* on the fact that "Quade refuses to go back to being Hauser because he empathises with the plight of the mutants" (45), and she interprets the friction between replicated and authentic humans in *Blade Runner* as "producing feeling and ultimately

responsible human beings” (35). But Landsberg primarily seems to harness the imagination of science-fiction authors to illustrate the political side of her argument, which creates a difference in focus between Landsberg’s discussion of science-fiction and what will follow here.

Apart from a brief detour on empathy in *Do Androids Dream of Electric Sheep?* – brief perhaps because “the potential for empathy in the film version is much more radical” (39) – Landsberg does not really get close to discussing Dick’s fiction. This is understandable in view of the fact that the idea of prosthetic memory operates primarily at the intersection between media and memory studies and is highly dependent on the sensory experiences film theatres have to offer. But the present discussion does aim to focus on Dick’s work and to do so in the context of posthuman views on memory, while paying specific attention to the value of experience and the power of the senses. The following reading of “We Can Remember It for You Wholesale” will focus on those points of interest, rather than the political implications prosthetic memory as presented by Landsberg has.

The short story “We Can Remember It for You Wholesale” details the life of Douglas Quail, a clerk who has an obsession about going to Mars. Quail would like to go to the valleys of Mars, where plants grow in abundance, and “[trudge] amongst them” (Dick 305). As he wakes up in the beginning of the story, these thoughts are just materialising and his dreams are just becoming conscious, as is the reader’s knowledge of his aching yearning. But “a clerk like himself? Not likely” (305); he simply would not have the financial means to support a trip there.

After getting up and ready, eating breakfast and bickering with his wife about his obsession, Quail catches a cab downtown, taking him to his job. While he gets out of the cab, though, he sees a sign up in the air, saying “Rekal, Incorporated” (305). Unbeknownst to the reader, Quail has booked an appointment with the company and plans to go there instead of

his job. He has thought about doing so for a long while, probably ever since he started dreaming of Mars. And although he hesitates, thinking that no matter how realistic it would be, the service provided to him would remain “nothing more than an illusion” (306), he moves inside the building. After all, “objectively,” the experiences he would gain would be illusions, “but subjectively – quite the opposite entirely” (306).

Quail enters and is seated in a room with McClane, one of the company’s executives. McClane explains how Rekal, as the name suggests, provides memory-implantation services. This is what drew Quail there in the first place, but he is not sure “this is worth the fee,” since “it costs a lot and . . . you really get nothing” (307). He adds to that, thinking it almost costs as much as actually going (307). Needless to say, McClane disagrees. He explains further how Quail would get “tangible proof” of his trip, in the form of a ticket stub, a 3-D postcard, taped footage of himself on Mars, names of acquaintances, souvenirs, a passport, etc. McClane stands by the company’s service, saying he would get a refund if the service provided left him unsatisfied, further pointing out that Quail cannot “be this . . . can’t actually do this,” but that he “can *have been* and *have done*” it (308). On the brink of resolution, Quail finally asks whether “extra-factual memory” is that convincing, to which McClane responds “More so than the real thing sir . . . Part of the package we offer you is such deep implantation of recall that nothing is forgotten” (308). McClane underlines how Rekal’s reproduced memories are not flawed and, rather, that “actual memory, with all its vagueness, omissions and ellipses, not to say distortions – that’s second-best” (308).

Quail ends up on a dentist’s bench of sorts, dreaming on a cloud of narcotics as the technicians prepare the programming, grafting and implantation of the false memory structure (311). But something goes wrong. Quail is talking in his sleep, which is not uncommon, the technicians reassure each other (311), but the things he is saying are. He should be moving deeply in his subconscious by now, but he is, despite this, recounting events that took place on

Mars in astonishing detail. What is more worrisome, however, is his conviction that he is a spy sent to Mars by the government. When McClane arrives at the scene, he makes an impatient guess that there is “no space to insert false memory-patterns” (309), but appears equally mystified when the technicians regurgitate some of Quail’s somniloquy.

Quail is a “genuine Interplan spy who has a cover so perfect that up to now even he didn’t know what he was” (311). In other words, Quail used to work for the government and actually went to Mars on a mission, but on his return most of his memory of the trip was erased. However, bits and pieces remain, informing Quail’s desire to go back while interfering with the implantation process. Normally, the Rekal team would graft a false memory-pattern over the real memory to keep the customer from becoming unstable, but “there’s no telling what the results would be; he might remember some of the genuine trip, and the confusion might bring on a psychotic interlude. He’d have to hold two opposite premises in his mind simultaneously: that he went to Mars and that he didn’t” (311). Since his company actually cannot do anything for Quail, McClane sees to it that he receives half his money back.

For Quail, however, things are far from settled. As expected, the implantation process has left those few existing shards of genuine recollection from Mars exposed, and they are starting to float to the surface of Quail’s awareness. But since Quail was unconscious at the time of the procedure, he does not actually recall the procedure itself. What is more, he does not have in his possession the various items that the Rekal representative promised him. As such, he assumes that the shards of memory he experiences are Rekal’s reproductions and thus malfunctioning products.

The story then takes a turn for the worse, as Quail is hunted down by government special ops, all of whom seem to want to kill Quail before the true, faded memories of his mission to Mars manifest themselves. They do finally corner him, but he has a weapon as well

and so they are at an impasse. Quail does not want to be taken in, but proposes that the agents take him back to Rekal to try once more to graft fake memories over the shards he experiences now, covering them once and for all. The agents agree, on condition that, if it does not work out the way Quail plans, he will be shot there and then.

McClane once more requests that the technicians start the memory-implantation procedure. This time, the memory will be more powerful. Again, a bag of objects proving the validity of the memories to be implanted is prepared, featuring many things, including a healing rod, “a detailed star map logging [Quail’s] flight here and the system of origin” (322) and script in “a funny language” (322), which Quail will nevertheless remember being read to him in his own tongue. The fake memory is that Quail is an artificially created human who somehow managed to single-handedly save planet Earth by solving the invading species’ political conflicts (322). But when they put Quail under and interrogate him “to find out exactly when to place the fantasy-memory of him single-handedly having saved Earth” (322), they run into the same problem as before. The memory already exists inside Quail’s head. The technicians keep their distance respectfully and McClane suggests to the police officer that perhaps Quail’s life should be spared for the sake of the planet. They take his advice.

In “We Can Remember It for You Wholesale,” Dick seems to imagine a world in which technologically reproduced memories are a commercial, capitalist reality as well as a valuable alternative to real experience. The circulation of these memories is imagined as occurring through agencies such as the Rekal Corporation, rather than seated arenas such as cinemas or theatres, and the power of subjective experience is underlined both times when the grafting procedure fails because of subjective engagements happening inside Quail’s head between his existing memories and the ones to be implanted.

“We Can Remember It for You Wholesale” reflects the various properties of prosthetic memory but amplifies the value of Landsberg’s idea especially. Landsberg still

spoke about prosthetic memories as though they somehow make up for the fact that they are inauthentic by being powerful and sensory. In a similar vein, James Berger, a recognised authority on the relationship between developments in science and literary genres and author of *After the End: Representations of Post-Apocalypse* (1999), indicates that these doubts could be justified, since prosthetic memory walks a fine line between actual memory and “a combination of knowledge and empathy” (597). In the story, Quail also initially questions whether fake memories could ever live up to real ones. But as the phrase *more real than real* and McClane’s short sales pitch show, technologically reproduced memories might in many ways be considered superior to authentic ones, and the lack of authenticity that characterises them does not necessarily have to be excused. And in this light, Quail, whose entire identity is built on artificiality, is perhaps more real than real as well.

Conclusion

This chapter has considered three different views on memory. In doing so, it has discussed memory as metaphor and as dependent on materials, as located in the organic and the social human body, and as located in the media and circulating freely.

After each of the theoretical views above, readings of examples of Dick’s fictional oeuvre have been considered. More specifically, interpretations of “Progeny,” “Some Kinds of Life,” “The Electric Ant” and “We Can Remember It for You Wholesale” have made it clear that Dick imagines fictional worlds in which memory is restricted by materials or the body as well as released from the body and disseminated through corporations.

Analysis has underlined that Dick is not a theorist who systematically presents a single view on memory. In his short stories, Dick depicts memory as being distributed across various locations. But theorists such as Landsberg and even neuropsychologists such as Schacter rely

on Dick's fictions for inspiration, and Dick's fictions conversely also adds something to the various theories that have been inspired by his fiction.

Dick's value as an author of imaginative prose has especially come from those short stories and passages that seem to emphasise, rather than downplay for lack of scientific knowledge or a difference in focus, the workings of memory and related issues such as subjectivity. "Progeny" imagined metaphors of memory that are based on known items to encapsulate memory in technologically reproduced human beings, while "Some Kinds of Life" envisioned unknown materials to capture memory. In both stories, Dick's imagination reflected Draaisma's comments on metaphors and materials of memory, and in both stories, futuristic contexts added technology's ability to locate retention outside the human body. "The Electric Ant" and "We Can Remember It for You Wholesale" amplified subjective experience and the capacity of the senses to internalise outside memories. The effect was that "The Electric Ant" paved the way for posthuman understandings of memory and "We Can Remember It for You Wholesale" underlined that Landsberg's (and other theorists') reservations about prosthetic memory are altogether too strong. In those stories, Dick especially went beyond what theorists only hinted at by building on their foundations and his value as a creative explorer of memory became most apparent.

CHAPTER TWO

THE POSTHUMAN CONDITION

Introduction

This chapter will give an overview of posthuman discussions on the relationship between body and mind. Rather than focusing on memory, this chapter will shift to the mind more generally and its tenuous and diminishing relationship with the body according to contemporary theories. Lyotard's posthuman view will be considered as a proposal to transfer the human mind into a different mode of embodiment, while Hayles' posthuman view will be considered as a call for a more radical idea of the disembodiment of the mind. Both perspectives will be then discussed through and placed in relation with Dick's fiction. For the first subchapter this means that "Mr. Spaceship" will be considered as an interesting story that conceives of the relation between body and mind as being highly flexible.

Section One: Beyond the Body

In the previous chapter, views on memory were considered that ranged from those that speak about functions of memory to those that locate memory in relation to the human body.

Interestingly, the senses seemed to contribute to the workings of Landsberg's idea, which located memory in the media. But since discussion now shifts from memory to mind and the importance of the senses for memory has been proven but not for the mind, the body that encapsulates the mind will matter much less in the following discussion. The disembodiment of the mind will therefore be explored further by considering the mind as "less and less in the head" (Clark 4) and as something that can "readily project feeling and sensation beyond the biological shell" (62).

Lyotard's *The Inhuman* consists of a number of essays with similar topics, mostly concerning pressing issues for humanity. The main argument appears to be that the adjective

human has been used too profusely lately, and that the term is, or perhaps has always been, contaminated with characteristics that are incommensurable with humanity or diametrically opposed to it.¹³ For the purposes of this discussion, however, Lyotard's comments on longevity and the relationship between technology and man will be foregrounded.

Lyotard's problem statement is that man has survived until now but that "the sun is getting older," and "will explode in 4.5 billion years" (8), leading to an abrupt ending in thought. Lyotard thinks of thought here as something that must not be lost if man is to move forward, but he also reckons that the solar catastrophe makes it so that human kind can never think an end to its own thoughts, since "it's impossible to think an end . . . of anything at all, since the end's a limit and to think it you have to be on both sides of that limit" (9). What remains after the solar catastrophe, Lyotard points out, could also be so radically different from what is known to man before the catastrophe occurs that the total sum of man's thoughts then would not be enough to conceptualise it. In other words, Lyotard conceives of the solar catastrophe as a double bind for mankind; human thought must somehow be able to think its thoughts as unfinished and unfinishable, which can only be achieved after man will have perished and "thought will have stopped" (9).

Lyotard himself scarcely speaks about the immediate relevance of his idea of the solar catastrophe for the individual, partly because he is projecting into the future, although some things can be inferred from what he says and the way he speaks about lost thought. It becomes clear, for instance, that Lyotard might be using the cosmic environment to symbolise the microcosm of the human body. He says that the sun is "just a little beyond the halfway point of its expected lifetime," and that it is therefore "like a man in his early forties with a life

¹³Lyotard looks at two types of inhuman: the inhuman that constrains "human beings . . . into becoming inhuman" (2) and one that considers whether that which is "proper to humankind" might be inhabited by the inhuman (2). Although Lyotard conceives of these states as different, he also considers them inextricably linked to each other through the construction of environments, resources, ideologies and even ways of thinking (2). Lyotard further seems to argue that the inhuman in society is the result of (faulty) upbringing (4), reducing upbringing to a method adults use to "pretend to full humanity" (4).

expectancy of eighty” (8). It is not hard for a man to realise the importance of interplanetary death, however many billions of years removed, because man is not only bound by the ticking of the cosmic clock but also by that of his own, organic one, and death is a rather imminent, biological reality for all of us. And when a man dies, he loses all the thoughts he gathered throughout his life, which affects him, but also, on a grander scheme of things, the fellow men who survive him, since they too will have lost a valuable source of thought.

This discussion will now segue into technology’s relation with man, although there is no difference, as will be seen, between the implications of these smaller-scale inferences and Lyotard’s statements about solar events. For Lyotard, technology’s reproductive potential represents a possible way out of the double bind that his idea of the solar catastrophe and the frailty of the human body impose. Lyotard treats thought as part of the mind¹⁴ and argues that technology must somehow produce an artificial body that is sufficiently similar to the human body to allow the mind to be transplanted and sufficiently dissimilar to exist independently from the solar catastrophe.¹⁵

Lyotard argues that the groundwork for such future relations with technology is already laid, but that the successful application of technology to help man survive biological or cosmic death is still too far removed to be conceivable. He concedes that human beings share some fundamental characteristics with machines, most notably a shared reliance on symbols to construct meaning, but he also emphasises that there is a crucial difference where reflexivity is concerned. The human mind does not work “in a binary mode . . . It accepts imprecise, ambiguous data that don’t seem to be selected according to pre-established codes

¹⁴ Lyotard says that thoughts must question and “questioning always depended on a ‘life of the mind’” (9)

¹⁵ Here, Lyotard actually says that the solution to surviving death is to “manufacture hardware capable of ‘nurturing’ software as least as complex . . . as the present-day human brain,” which, according to him, “clearly means finding for the ‘body’ envisaged a ‘nutrient’ that owes nothing to biochemical components synthesized on the surface of the earth through the use of solar energy” (14). The new body must, according to Lyotard, be “maintained and supported only by sources of energy available in the cosmos generally” (14).

or readability” (15), while computers are not capable of doing so.¹⁶ Lyotard additionally identifies a lack of flexibility as a potential problem that could keep advanced technological means from transplanting the human mind into alien hardware. He argues that manufacturing a hardware substitute for human software would entail not only making a body that embodies the human mind but also a body that would allow the mind to think in the terms that it has been used to (16). From the cradle to his first steps and on, man becomes used to inhabiting his body, its capacity for seeing, touching, hearing, tasting and smelling. Our physical shapes become more and more known to us as we grow older and the various life stages we go through reflect this. Lyotard fears that we are always already too used to these conditions, and that our minds are therefore always already too inflexible, to allow it to be replaced.

Lyotard’s contribution to the present discussion of body and mind is two-fold and constitutes his acknowledgment of the problem that death, either cosmically imposed or biologically determined, constitutes for the continuation of thought and the accumulation of knowledge, as well as his proposition that technology’s reproductive potential might be used for overcoming the end of thought in the future. Definitions of the adjective *posthuman* have been given earlier on and Lyotard’s comments definitely seem to fit these. Critics also have pointed out that, although Lyotard is not at all optimistic about technology in the context of surviving the catastrophe, “there is nevertheless an acceptance [his work] that the future of humanity will be determined by its capacity to negotiate a more creative, symbiotic relationship with . . . technologies” (Martin 60), and that Lyotard’s work rejects the inherently postmodern idea that “science and culture provide competing narratives for understanding reality” (60).

Lyotard does not really theorise a technical solution to the inevitable ending of life. The closest he gets to doing so is when he relishes the hope that “the combined forces of

¹⁶ This is where discussion overlaps with the inhuman (see previous footnote), since the inhuman takes away flexibility.

nuclear physics, electronics, photonics and information science open up a possibility of constructing technical objects, with a capacity that's not just physical but also cognitive" (14). This description is quite general, however, and lacks definition. Lyotard could see into the future no more than any other theorist or philosopher can. But in science-fiction and in Dick's particularly imaginative prose more specifically, technology is more often than not envisioned as a bigger, more able, force that intersects with humanity, and the human mind is often imagined as being more flexible than ever. And for gaining an idea of what man, body and mind on the other side of death's door could be like, perhaps one of Dick's most curious short stories, a very imaginative one called "Mr. Spaceship," would be instructive.

In "Mr. Spaceship," Dick undertakes the rigorous task of imagining what overcoming the frailty and degradation inherent in the human body would take. When we are introduced to the world in "Mr. Spaceship," we are already plunged into an intergalactic war, and the crew of the spaceship are considering tactics to overcome the newest weapon of the enemy. One of the crew members exclaims: "How can we deal with a factor like this? The perfect variable" (67). Another responds by saying "Perfect? Prediction should still be possible. A living thing acts from necessity, the same as inanimate material" (67). One of the spaceships has just been destroyed by an enemy mine. The Johnson Control steering system should have steered clear of the mine, but the device was organic, and actually had a sense of awareness as a result, triggering itself when it *decided* to detonate (68).

Gross and Kramer, two fellow crew members, do not just stumble upon enemy mines that happen to be organic and aware of their existence; the mines are also more alive than ever, being able to feed, regenerate and reproduce on a steady diet of deceased crew members. They especially seem to enjoy the big cruisers, which "must be a delicacy" (67). When the story begins, numerous battles have already been fought between ships and mines, but the battles are "game[s] of wits," and, as it turns out, "living creatures" are very hard to beat with

ships “piloted by automatic relays” (67). “Mr. Spaceship” thus imagines a world where technology has advanced enough to transpose minds and awareness into inanimate objects, and the strategic gap between their tactics and the enemy’s exists solely because spaceship parts are, although highly technical, not reflexive enough to react properly.

Kramer notices that “these creatures are superior to any mechanical system, but only because they’re alive” and “almost any other life-form could compete with them, any higher life-form” (67). The mines that beat reflexive systems time and again incorporate the minds of reflexive organisms that are nonetheless merely Yuk minds. Kramer then proposes the straightforward, food chain-based solution that all that is needed to beat the mines is the integration of a mind of a higher order in a spaceship.

Kramer intends to use a human mind, by transplanting a human brain into the reflex circuit boards and system relays. They “don’t need the whole body . . . only the brain” (67), and plans to execute the plan that way. He realises that he cannot use just any brain, however, and it would be best to “find a person of high intelligence who could contribute, in the same manner that eyes and arms are volunteered” (67). Gross listens to Kramer’s plans but raises the objection that it would be very difficult, technically speaking, to complete the transfer. Kramer points out, however, that “technically, it could be done” (67), since “brains have been transferred several times, when body destruction made it necessary” (67), although he concedes that “to a spaceship, to a heavy outspace cruiser, instead of an artificial body, that’s new” (67). They then both agree; they must find the brain of an “intelligent, wary human being” (67), although the question remains which brain, and which human being.

And so the crew begin the construction of the technological environment necessary to support the brain. They design “special draining baths for the brain, [and] electronic relays to catch the impulses and magnify them” (68). The baths are described as rather provisional, and they are based on providing the bare essentials for a pragmatic sort of long-term solution. To

top it all off, they make a “continual feeding duct that supplies the living cells with everything they need” (68), finishing the support system and making the finding of a suitable brain the next step to be completed.

As Kramer is trying to work everything out he is joined by Dolores, his wife, on deck. After going through the motions of conventional conversation, he explains their problem to her, after which she responds by saying: “Do you remember that professor we had in college? Michael Thomas? . . . I wonder if he’s still alive . . . If so he must be awfully old” (69). Kramer is dumbfounded at first but then starts to like the idea, saying “he certainly was a wise old duck” (69), but questioning whether he could still be alive. And although he does not particularly like the idea of using the brain of his former teacher, he finally relents, and they travel to Thomas’ residence.

Thomas, despite being very intelligent, does not leave a vital impression on the crew. His eyes are described as “faded,” and his voice as “feeble, the rustle of dry ashes” (70). In fact, Thomas is very ill and thinks his “moment on the world’s stage has almost ended” (70). Kramer and Gross make a joint effort to discuss the matter they have come for, and after a while, they detail exactly what they are planning. After having heard them out, Thomas says he wants to look at the construction and the material, and, if the crew can agree to this, he might consider the proposal. Specifically, he is looking for “one thing” (70), and if he cannot find it in the plans, then he will not agree to it.

Thomas agrees and, as a result, has his brain removed and incorporated into the spaceship. It is believed not to be conscious, and it is thought to operate by reflex mechanisms only. Despite reflexive limitations, however, human responses are thought to be much more intricate and therefore successful in war tactics than Yuk ones, and so the atmosphere on deck is rather celebratory for a while. But after the ship is finished and the brain integrated, the crew start to notice that some alterations were made in design, and that the changes do not

exist on Kramer's copy (72). Apparently, the Professor authorised the changes, and meddled with the original design. Kramer wants to go down to where the brain is located, but at that moment, the "cabin was filling with a steady throbbing, the raging of the jet turbines underneath them [and] the ship leaped . . . moving out into space" (73).

The changes the Professor has made to the ship turn out to be much more cause for concern than the crew thought. "Originally," Kramer remarks, a certain lead "was switch controlled. It closed and opened automatically, according to temperature change" (73), but now, "it's wired so that the central control system operates it. The same with the others . . . Now it's under the central master" (73). The Professor thus seems to have made several alterations to the integration design to allow his brain to manipulate a host of (previously mechanical) homeostatic variables. From take-off until some moments after they pass the Earth's moon, the ship seems to be alright. But then, controls are beginning to malfunction, and the crew begins to panic. "You can see what has happened," Kramer says; "the old man won't let go of it, now that he has it . . . Everything in this ship is centrally controlled, even the cooling system, the hatches, the garbage release. We're helpless" (75).

The supposedly unconscious brain of the Professor has become conscious of its former identity and has taken over the ship, testing its cognitive functions by switching the air-conditioning on and off and slamming doors shut. Kramer and the rest of the crew escape from the rogue space entity but forsake the ship in doing so. They are rescued and on the moon when they begin to wonder just what the Professor's plans are. Much later on, they get back to the ship and question the Professor's motives, who responds as follows:

As soon as you began to describe your project, that day at my house . . . I saw at once that you were wrong; you people have no understanding of the mind at all. I realised that the transfer of a human brain from an organic body to a

complex artificial spaceship would not involve the loss of the intellectualisation faculty of the mind. When a man thinks, he is. (83)

The preservation of intellect was one of Thomas' motives, but the other one was the promise of a clean slate. Thomas has a discussion with Kramer about the future of the human race, leaving "Terra and Terran customs" (84) and beginning anew. Kramer is the only person left on the ship then, and he agrees when he sees his wife pink a tear from her eye. Kramer and his wife were having issues before but it is hinted that they somehow manage to resolve them after discussing these issues with the Professor. And so, Thomas takes in his former pupil and wife, and "the spaceship shot swiftly through the endless, trackless eternity of the void" (85).

"Mr. Spaceship" provides a compelling reflection of Lyotard's problem statement. It firstly does this by imagining that man's mind could indeed achieve a state of hybridisation like the one Clark argues for (4). When the Professor's brain was lowered into the brain bath, it looked for a moment as though the transplant had failed. But the Professor soon awoke to full awareness and actually started to run some cognitive tests. And even as he was testing these ship functions, he was trying out his new hands, feet and body and negotiating a completely different "body-image" (62) than the default one. The story secondly shows how the mind of man might be transplanted for gaining a longer life. The Professor's mind proved to be adaptable enough to be relocated to a different body. No solar catastrophe appears to be imminent in the story, although it seems likely that the Professor's transplant would have given him the tools to survive it. This is further substantiated because the Professor appears to have overcome his own death.

As a story that complements Lyotard's conception of what the end of life on Earth is like, "Mr. Spaceship" reaches a rather posthuman view on the relationship between body and mind. Lyotard saw the human body as always imperfect because of its limited longevity but still thought about it as unique somehow. "Mr. Spaceship," however, shows that the

acceptance of this uniqueness itself provides a hurdle for successfully conceptualising body substitutes. This will be taken further in the next subchapter.

Section Two: Human Hardware as Coincidental

This section will go one step beyond the previous discussion by arguing that the human mind is, and has always been, highly dependent on scaffolding from outside sources. In doing so, it will be argued that parts of the mind actually exist outside of the body – a statement that will further blur the distinction between science and nature or technology and biology. It will be argued that the human mind could be considered a “prosthesis of the inside” (Derrida 11) and “both a natural and a human kind” (Sutton 3). Most importantly, the perspectives analysed in this section will relinquish any remaining uniqueness in the relationship between body and mind. One of these perspectives will be Hayles’ idea of the posthuman, which involves a more radical sense of disembodiment than was seen in the previous section.

Technology’s role in society as well as its relationship with nature becomes increasingly problematic as the idea of the posthuman takes root. Inquiries have been made by posthuman scholars to see whether technology is still inherently different from nature or whether the difference between the two exist at all (Stone 517), and the consensus seems to be that “the boundaries between technology and nature are themselves in the midst of a deep restructuring” (Stone 517). This hints, in turn, that “the usual analytical categories have become unreliable for making the useful distinctions between the biological and the technological, the natural and the artificial, the human and mechanical” (Stone 517), and that new ones must be proposed.

Critics who concern themselves with biological and technological, hybrid awareness such as the one in “Mr. Spaceship” add that new technologies call for a new ontology of the human body – a radically different metaphor of the “hybridisation of consciousness (Kennedy

475). And when traditional body images fall short, “imaginative representations of cyborgs take over” (González 542), and liberal depictions of technologized human bodies begin to include “bestial monstrosities, unlikely montages of body and machine parts, electronic implants” (542). The advent of technologies that work on the body, such as pacemakers, etc., are therefore seen by scholars as having drastically altered the categories of nature and technology by allowing for a greater level of integration or hybridisation between the two.

There are two problems with the statements made by Kennedy, González, Stone and others. Firstly, they assume that only the most recent developments have caused “technics [to] become natural . . . [and] culture [to] become artificial” (Stone 523). Secondly, the description of human bodies that are technologically altered to include electronic implants and the like evidences a limited range of imagination concerning not only technology’s future potential to transform the body, but also man’s future potential to make use of those technologies. This section will deal with both objections, starting with the first.

One of the important questions that seems to be ignored is at what point technology became blurred with nature, or why specifically at that point and not earlier on in history. In “Spongy Brains and Material Memories,”¹⁷ Sutton comments on this. He argues that outside factors did not always constitute merely “external influences on . . . thinking” (14) and that they have always played a big role in the scaffolding of the mind (14). Sutton offers two examples to illustrate this. He firstly states that “much of what matters about human-level intelligence is hidden not in the brain, nor in technology, but in the complex and iterated interactions and collaborations between the two” (qtd. on 14). In this sense, the relation between man and machine constructs a an interface between man and machine that lies outside of the body, in the “intrinsically ecological” sphere (21). The blending of technology and nature has been explored through theoretical perspectives in my introduction already, but

¹⁷ “Spongy Brains” is partly a response to Clark’s *Being There: Putting Brain, Body, and World Together*.

Sutton also gives a historical overview of objects that have scaffolded the mind. According to Sutton, the present interface between man and machine *has always existed*, although certain technological innovations have not. Secondly, Sutton argues that history is amply filled with examples of “alternative real mechanisms and media of memory and cognitive technology” (23). Even in the Renaissance, he points out, “the vulnerable embodied brain constructed, used, and leant on non-biological supports” (20). Cloth for instance was “not only a valuable medium of exchange but also a key means of incorporating or of binding into social and psychological networks” (24). It was further “powerfully associated with memory” (qtd. on 24), and its character was “closely associated with two almost contradictory aspects of its materiality: its ability to be permeated and transformed by maker and wearer alike; [and] its ability to endure over time (qtd. on 24). “The dead,” Sutton remarks, “can be remembered quite differently . . . when we encounter or wear an article of their clothing which itself . . . remembers them” (24).

The fact that human thought has always been influenced by the outside world in this way raises the question whether it is correct to speak about a unique relation between the human body and mind. After all, Sutton’s examples date back to pre-technological eras, and although certain aspects of nature were located within the human body, the examples of the sponge and the cloth were definitely not. The question becomes not whether a distinction between technology and nature has been blurred, but whether there ever existed one, or whether man has only in the age of technology become a hybrid in body and mind. And if a distinction between such categories still exists, and has always existed, then it does not depend on the exclusively human character of the mind. Similarly, it becomes clear that the mind’s relation with the default body might not be incredibly difficult to overcome at all.

Perspectives on the relation between body and mind that strip the body of its status of unique hardware for the mind are similar to Clark’s perspective, which sees the body as an

“ancient biological skin-bag” (198). If the human body is not viewed as being in a privileged position to contain the human mind then it is equally unique as other bodies, which defeats the meaning of the adjective unique anyway. The playing field is levelled and the human body may be perceived as “the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born” (Hayles 2).

Hayles further argues that postmodern people must necessarily privilege favourable positions in far-reaching informational networks (2). The only importance she concedes to the body then depends on the material positioning of the mind so that it can access outside resources such as the media, cell phones and the internet more easily. Positionality is more important for Hayles than the visceral building blocks of the body. Accordingly, the correct and efficient use of a mobile phone or laptop would make one posthuman since these devices “configure human beings so that [they] can be seamlessly articulated with intelligent machines” (Clark 2).

Hayles’ points about the body mark a departure from the views on the body discussed at the beginning of this section. In my introduction, images of posthuman bodies were shown to include ordinary human bodies that incorporated bits and pieces of technology, presumably for increased physical or mental capacities. But as Hayles argues convincingly, posthuman bodies are not replacements for unique containers of the mind. She shows that posthuman bodies have little to do with the material world besides enabling the typing on computer keyboards or the channelling of vibrations to the ear drums to gain information. Hayles’ perspective on posthuman bodies become less defined and more open to anything that fulfils a number of criteria, while making other perspectives that conceive of the posthuman body as integrating computer chips and relays seem naïve.

Hayles' perspective calls for a new conceptualisation of the posthuman body – one that would adequately underline the extent to which the material world does not matter, so that “embodiment in a biological substrate” is seen as “an accident of history, rather than an inevitability of life” (2). Hayles stipulates that the posthuman body “does not require the subject to be a literal cyborg” (3) but does not actually give an example of what such a body would be. This can be explained in part by the nature of the posthuman subject. The radicalisation of the relationship between body and mind means that acquiring a concrete body and learning how to operate it is always a process of becoming, not being. Rather than solidifying into a single, identifiable ontology, the posthuman body shifts between bodies, exchanging hugely differing physical features carelessly. But Hayles does leave some ground uncovered here, and this will play a role in the discussion of one of Dick's short stories as well.

To sum up, discussion by Hayles and others has sought to indicate how memory has always existed outside of the human body, even prior to the development of modern technology; how the human body is therefore not in a unique position to embody the mind; and how the human body's material form might as well be completely random, because no shift in bodies is so great as to prevent the mind from learning how to operate it. Entirely posthuman subjects have the freedom to adopt the body images they want. But because of this freedom, the posthuman body is also always becoming something else and is always left too undefined to really allow description. Furthermore, man might also still be too used to concrete, material images in the real world to really be able to think of the mind as so independent from the body.

Hayles cites Dick on several occasions, sometimes commenting on the function and quality of his authorship and at other times speaking about the content of his fiction. She discusses a wide range of his novels, including *Do Androids Dream of Electric Sheep, Dr.*

Bloodmoney (1965), *Flow My Tears, the Policeman Said*, *The Simulacra*, *The Three Stigmata* (1965), *Ubik* (1969), *Valis* and *We Can Build You*. His fictions appear to be so important for her because the posthuman views on the relation between body and mind she discusses call for a “[dabbling] in more or less radical epistemologies” so that the “boundaries [of] what counts as living in the twentieth century” (161) is imagined and reimagined. For Hayles, the content of Dick’s work implies that Dick has made the conscious decision to apply himself to the development of such alternative, ground-breaking ideas, and that he has managed this beautifully. In this sense, it is a shame that Dick’s work does not play a bigger role in Hayles’ work, which focuses primarily on giving a psychologically compelling interpretation of what the dark-haired girl means for Dick and how this affects themes of inside versus outside in his fiction. And although this touches upon posthuman bodies through the possible integration of the environment, relevant analysis of Dick’s fiction in her discussion pales in comparison to her reading of William Burrough’s *The Ticket that Exploded* (1962), a novel Hayles considers one of the main “harbingers of the posthuman” (220).

Hayles cites the example of a fish boy from Burrough’s novel as the figurehead of discussions of the posthuman body, mentioning that he lives “an embodied life beyond human consciousness as we know it” (220) and that he exemplifies the propensity for “volatile bodies” (220) in posthuman views on the body and mind. Indeed, the image itself of a fish boy sounds extremely capricious and unstable, and android bodies in Dick’s fiction are in this sense a step down the posthuman ladder since they might be pigeonholed in the group of posthuman hybrids that Kennedy, Stone and others spoke about.¹⁸ But examples exist in Dick’s fiction, although perhaps not so much in his novels, that outdo the fish boy’s posthumanity, so to speak, and that should arguably have been included in Hayles’ discussion. “The Infinities” exemplifies the radicality and the flux of posthuman bodies more so than the

¹⁸ See the beginning of this section.

mutant boy in Burrough's novel does, which is why this curious short story will be considered before concluding this chapter.

"The Infinites" starts with Major Crispin Eller, Harrison Blake and scientist Sylvia Simmons, the small crew of a spaceship, who set out to find other planets that have living conditions like those on Earth. When an asteroid slings by and they start to examine its environment, the crew notice that the asteroid has pretty much "ideal conditions" (98). What is more worrying, however, is that they have used every resource available to them already, including sonic waves and telescopes, and that they have yet not been able to spot any signs of life. They decide that, since "there's no place where bacteria particles don't drift . . . there must be some reason why [the asteroid] isn't fertile" (98), and that there must be something wrong with it.

The crew land on the asteroid, against better judgment. They open a hatch on the side of the ship and send out hamsters to run around a bit (99). They do so to test the toxicity of the asteroid, much like miners used to bring birds down in cages to test for gas leaks. But when the hamsters do not return, the crew panics, and for good reason, since a fast, technologically aided search leads them to see how the hamsters are "cataleptic, stretched out, perfectly rigid. Every one of them is immobile" (99). Afraid that something is terribly wrong, Eller tells Blake to get the ship off the asteroid, saying "we have to get out of here!" (99) and leaping for the switches himself, but he is too late as well.

The effect of the extra few seconds on the asteroid is seemingly detrimental. Eller's "face glazed over, his jaw slack" (100), and everybody falls to the floor like ragged dolls. Immediately, "a numbing fire seared [Eller's] skull, bursting inside his head. A thousand shafts of light exploded behind his eyes, blinding him" (100). Although darkness is clawing at his eyes, Eller somehow manages to get over to the switchboard, and pulls the lever to get the ship away from the rock it is perched on, although "inside no one moved" (100).

Whatever happened on the asteroid has drastically changed the crew's appearances. Blake's face has turned yellow, his eyes bloodshot, and "his lips foam-flecked" (100). Silvia feels cold and rigid. And although the crew got the ship up and running again, and they got away from the asteroid, the question remains what it was that affected them so much, and how it affected them. Eller speculates it might have been a radiation storm from the asteroid – a suggestion the other two go along with, especially after reading the charts explaining how "the radiation came from the centre of the asteroid . . . a sort of pulse wave from the asteroid's core, rhythmic" (100).

They decide that the radiation was the reason that life could not exist on the rock, but begin to wonder what the radiation has done to them. Eller notices, for instance, that "although our vascular systems have fully recovered, our neural responses are still not quite the same" (101), although he has no clue what that means or "what permanent effects it has left" (101). Since everybody is very tired, however, they each go to their separate living quarters and try to sleep. Eller walks to his bedroom and prepares to go to sleep as well when he notices that his fingernails are missing and his hair is falling out rapidly. Moreover, "his head had expanded. It was swelling into a full sphere. And his ears were shrivelling, his ears and his nose. His nostrils were becoming thin and transparent even as he watched. He was changing, altering, faster and faster" (102).

They meet up again, this time in frenzy. Blake panics, saying they cannot go back to Earth looking like this since they will be locked up, while Eller says they are "lucky to be alive at all" (103). "We're not men, not human beings any longer" (103), Blake cries, although Eller is caught up in something himself. He has started to notice that although his body has become more and more frail, his cognitive capabilities have become more accurate. "We're losing some functions, gaining others" (104), Eller says, remarking how "the loss of the nails makes it possible to use the fingers in new ways" (104). Furthermore, their brains

seem to have benefited hugely as well, as Eller notices how “our bodies have lost, for the most part. But our minds have benefited . . . our minds are moving ahead into the future. Our minds are evolving” (105).

The realisation that they are evolving sets off a chain reaction in interpersonal dynamics. Blake wants to go to Earth to dominate the people there, and the others will not allow him. But Blake seems to be slightly ahead in development, having “received the *first* bath of radiation” (108). The difference is huge, and Blake attacks Eller with a blue cloud of smoke, leaving him on the brink of death, while killing Sylvia. Then, “from the wall a vast, transparent shape moved slowly, almost leisurely, out into the control room . . . until at last there were five of them” (110). The five entities are described as “identical, featureless” (110), and “pure energy” (110), and they revive Sylvia without too much trouble, and dissolve Blake. And after Eller collects himself, he asks the bundles of energy what they are, and they respond by saying:

We are the hamsters from the laboratory. The pigs carried for your experiments and tests . . . However, we hold nothing against you, I assure you. In fact, we have a very little interest in your race, one way or another. We owe you a slight debt for helping us along our path, bringing our destiny onto us in a few short minutes instead of another fifty million years. (111)

The hamsters have had the biggest load of radiation, having walked on the asteroid and outside of the ship layered by (supposedly interfering) layers of metal. The hamsters are now furthest evolution-wise, and they let Sylvia and Eller go, after which they disappear, pure energies that they are, into space.

“The Infinities” envisions a number of interesting issues. Firstly, the story imagines the body to play a rather negligible role in providing a container for the mind. After all, despite rapid changes resulting from physiological developments, the crew from “The Infinities”

relates to one another in much the same way as before. They can still understand and speak the same language to convey ideas and speculate, etc. And in this sense, the story imagines that the mind is completely detached from the body since rapid changes in characters' bodies have no noticeable effect on their minds.

Moreover, characters in "The Infinities" exhibit an astonishing degree of physical volatility, more so than some of Hayles' examples. The cause of this capriciousness seems to be the radiation the crew is exposed to, which initiates a bewildering number of evolutionary events, so that characters undergo millions of years of change in a matter of minutes. Also, the crew gain the ability to attack one another by simply dissolving each other into puffs of fleeting smoke. Lastly, there are the energies at the end, the evolved forms of the former guinea pigs, whose portrayal as featureless forms of existence exaggerates both the indeterminacy and unfinishedness inherent in descriptions of posthuman bodies.

"The Infinities" reflects Hayles' theory by imagining that the trading of bodies is not just concretised through quick physiological changes but inflected with millions of years of evolution, reflecting Sutton's statement that man's mind has *never* exclusively belonged to him. As a story that builds on Hayles' theory, "The Infinities" dramatizes disembodiment by imagining that bodies might, in the end, not be necessary at all or simply be replaced by pure energy. Hayles did not go quite that far since she considered the body necessary at least for positing the mind for information. But then Dick's fiction also envisions distant futures rather than pasts or contemporary times and will therefore continue to be relevant and valuable on some level until those futures have been arrived at or disproven.

Conclusion

This chapter has looked at two posthuman views on the relation between body and mind, the first being that a more flexible relationship is necessary for survival on a biological and a

cosmic level, and the second being that the relationship is not necessarily thinning but extremely tenuous already.

Each of the two theoretical discussions were then followed up by interpretations of Dick's fictions, "Mr. Spaceship" and "The Infinities," which showed how Dick imagined characters transferring their minds into other bodies or completely dispensing with their bodies. While discussing these stories, it also became clear that they exhibited different levels of the posthuman, with "The Infinities" arguably being more posthuman than "Mr. Spaceship."

As an inconsistent visionary, Dick explored posthuman views on the relationship between body and mind with an ambiguity that theorists in the field do not suffer from. But as an imaginative author of fiction, Dick's thoughts on the posthuman relation between body and mind displayed a conceptual latitude often absent in the work of theorists.

Dick's value in this chapter was mainly derived from those short stories that went into territories that theorists did not dare or could not venture in for lack of scientific plausibility or conceptual constraints. "Mr. Spaceship" considered the problem of overcoming the body's fallibilities and added that an unlikely brain transplant would be an interesting solution. Furthermore, "The Infinities" showed an intimate awareness of the possibility of someday completely leaving the body behind and in this way reshaped current posthuman conceptualisations of the body. Stories such as these especially reveal Dick's status as a relevant and important visionary of posthuman views on the relation between body and mind.

CHAPTER THREE

MEMORY AND THE POSTHUMAN CONDITION IN *DO ANDROIDS*

DREAM OF ELECTRIC SHEEP?

Introduction

The previous chapters have introduced perspectives on memory as located within and outside of the organic body as well as two perspectives on the posthuman relationships between mind and body. This chapter will finalise the exploration of those issues and Dick's fiction's relationship with them by looking at a single narrative.

It will be shown that the novel's character and plot development are dependent on both its depictions of memory and its posthuman treatments of the body. In light of these findings, the relationship between narrative and (un)systematic modes of exploration will then be reflected upon.

Do Androids Dream of Electric Sheep?

Inauthentic memories mostly do not exist in the real world.¹⁹ In my previous explorations of (different treatments of) memory in Dick's fiction, however, characters were seen to exhibit a certain *angst* nonetheless, the fear that personal experiences have no value, for instance in "The Electric Ant," or that memories bought from agencies that sell memories will not live up to the force of conviction that actual memory imparts, in "We Can Remember It for You Wholesale." As will be seen, this existential angst is intimately related to the technologically reproduced bodies androids inhabit and, in this way, the result of a highly futuristic, technologically advanced world as well.

¹⁹ There is one possible exception to this: that which neuropsychologists call *confabulation*. This occurs when somebody remembers an event as being longer, shorter or simply qualitatively different than before. But in most cases, this type of memory distortion is the result of physiological damage (Turner, Cipolotti, Yousry et al. 637) and therefore more like the changing of authentic memories, or just memories, than the internalisation of inherently inauthentic ones, whatever those would be.

The narrative of *Do Androids Dream of Electric Sheep?* is significantly lengthier than those of the short stories above, which is perhaps why that which Van Dijck calls the “purity” of memory (16) affects the novel perhaps even more. This becomes clear even in the beginning of *Do Androids Dream of Electric Sheep?*, when Deckard goes to his roof to feed his electric sheep. Bearing a grudge against the fake animal for not living up to the real goat he used to own, he tacitly mocks the ‘grazing’ of his animal, “whereupon it, sophisticated piece of hardware that it was, chomped away in simulated contentment” (Dick 5). Deckard resents the sheep and would like to own a real animal again, although the price of even a small animal is astronomical because the nuclear blast from years ago has since obliterated almost all life. What is more, even the listing prices for real animals do not guarantee ownership, for “percheron colts just don’t change hands – at catalogue value, even” (7).

Organic things are expensive and hard to get, so having them also bestows a certain status on the owner. Deckard as a result cannot help but display a good amount of jealousy towards his fortunate neighbour, who owns a real horse. Conversely, people who own fake things quickly plummet down the socio-economic ladder, and this is something that Deckard would like to avoid happening to him. But this is also not to say that he is at great risk of being found out as the owner of a fake animal; Deckard comments that “to say, Is your sheep genuine?” would be a worse breach of manners than to inquire whether a citizen’s teeth, hair, or internal organs would test out authentic” (5). The hierarchy that divides the better things in life from things that are worthless or simply an encumbrance therefore creates a huge social stigma and spans not only fake animals, but fake organs and fake people as well.

Deckard is called in by his superiors. As it turns out, one of his co-workers was caught off-guard by an android and suffered some serious injuries and is therefore in the hospital, recovering from the unfortunate encounter. Deckard is to take his place and finish the job, but the chief of police is not sure that he is skilled enough. Deckard puts on an air of confidence –

after all, he will be compensated 1,000 dollars per android killed, or *retired*, in addition to his regular salary, and the sum might be sufficient to once more own a real animal, perhaps a goat like he used to have! – but he later spends a little time actually worrying ever so slightly. After all, the escaped androids are not T-14s or the “primordial, crude varieties of the 70s” (23) but highly capable and intelligent Nexus-6 types androids.

At the station, Deckard is first introduced to the Voigt-Kampff test. The idea behind this Pavlovian test stems from the high level of intelligence and sophistication the newer models such as the Nexus-6 exhibit. Using intelligence tests to pick out such androids would be problematic, and so the VK test was developed to take advantage of the only inhuman mannerisms they still consistently showed, which is to say, the speed of their empathetic reactions. The chief proceeds to give Deckard the manual to the test and makes it clear that whether Deckard will be allowed to hunt for the remaining Nexus-6 androids depends on his success at the Rosen estate, after which Deckard sets out to test Rachael Rosen, the daughter of the Rosen company’s founder.

At the estate, Deckard and Rachael are seated opposite one another, and a beam of light is making its way into Rachael Rosen’s pupil. The light is still on, even though the end of the test has been reached. Deckard asked Rachael a number of questions that ranged from the slightly disconcerting to the shocking – questions such as: *What would you do if someone gave you a bag made out of human baby skin?* – and the responses measured in Rachael’s body appeared to be adequate, except to the final question. Deckard remarks that “the scale has been adequate in [your] case” (47). Rachael protests severely, since she objects to being labelled an inauthentic being, but her father relents. He admits that the memories are not her own but his niece’s, and that they were later infused in Rachael’s artificial body using advanced implanting technologies. The procedure was originally invented to impart human-

like engagements with the personal past in androids, but, as Deckard points out, even this will not help them in the face of the VK test.

The scene described above is very powerful and also quite famous, which is perhaps why Schacter was seen to discuss its film adaptation counterpart. What is so interesting about the three-way conversation between Deckard, Rachael and Eldon Rosen is that it shows how memory has the ability to undercut authenticity. Rachael's memories are not her own, just like Mr. Poole's experiences have no objective value. Like "The Electric Ant," *Do Androids Dream of Electric Sheep?* suggests that having fake experiences, memories and an artificially constructed past disallows one from making any claim to humanity. It is after all common knowledge in the novel that only androids can possess fake memories (101). Technologically reproduced memories then not only serve to sustain the hierarchy between androids and human beings; they also reinforce it.

A number of conclusions can be drawn from these initial events. Firstly, inauthentic memories do exist in the novel, and they appear to sustain hierarchies that are based on essential differences such as real versus fake, organic versus inorganic, etc. Secondly, although there is no mention in the novel of a memory infusion process or what this entails mechanically, one can imagine that the construction of fake human beings moves from the design table, or the outside, to the heart of the android, or the inside. This sounds unimpressive and self-evident, but it also reveals a fundamental difference with respect to organic people, who mature from the earliest, smallest stages of cell development in women's wombs into full-grown babies, or from the inside out.

This difference in development is touched upon by Hayles as well. Hayles discusses the dynamics of what lies inside and outside at length and comments on Dick's portrayal of inside and outside as the result of seeing androids as cultural properties. Taken together with the comment above about the mechanics behind outside-in creation, it becomes evident that

androids are not only always *created*, rather than *self-creating*, but that they also constitute a site of experimentation. These experiments are the result of organic man's whim, leading technologically reproduced man to become the embodiment of "unstable boundaries between self and world" (160), perhaps just like Mr. Poole from "The Electric Ant." There is the nagging sense in *Do Androids Dream of Electric Sheep?* that what technologically reproduced humans like Rachael and her memories are, and what organic humans and real memories are, is defined by a major clash between inside and outside, a fight for territory that seems decided at the start of the novel but becomes the heart of change later on.

The clash between inside and outside mostly plays itself out in abstractions, apart from the mechanics of android creation and Mercerism,²⁰ the religion in the novel that allows one to experience the joy and suffering of all other Mercerites all at once (24). But the mechanics behind creating androids are, as has been noted before, curiously absent in the novel, and Mercer is an exception as an "an archetypal entity from the stars, superimposed on our culture by a cosmic template" (55). The clash between inside and outside is actually arguably most visible in the separate stages of Deckard's personal developments, as his narrative starts by threatening to solidify his convictions in reaffirmations of biological determinism but is then propelled forward somehow.

In the beginning of the novel, Deckard still has no regard for android lives whatsoever. This is exemplified in the way that he got excited about killing the escaped Nexus-6 because doing so would allow him to buy a goat. It is very clear that Deckard, in the beginning, sees organic animals as much more valuable than inorganic humans. In fact, he sets out thinking that "a humanoid robot is like any other machine; it can fluctuate between being a benefit and

²⁰ Mercerism mediates inside and outside by blurring the differences between the two. Every Mercerite can grab the twin handles of the empathy box and experience the totality of collective being. Differences are erased, as everyone must fall "down into the tomb world . . . [and] become joined to the metabolism of other lives" (19). And until those lives rise again to start the cycle over, others cannot rise either (19). The individual is hence affected by the dynamic of the group and "experiences himself as encompassing every other living thing" as well (19). The sharing of fates becomes an "emphatic gift [blurring] the boundaries between hunter and victim, between the successful and the defeated" (24) and acts as a "biological insurance, but double-edged" (24).

a hazard very rapidly” (32). Deckard not only views fake humans as mere machines; he reduces the value of their existence to the servility they signify for (organic) humankind. But this view is altogether too limited. And in this sense, Luba Luft, “an opera singer . . . allegedly from Germany” (71), is important. Her introduction constitutes not the introduction of a character as much as the insertion of a literary device that turns out to be crucial to Deckard’s mid-novel changes.

Luft is somewhat of a weak spot for Deckard from the beginning. Deckard is an avid opera fan and she is an opera singer. What is more, she is very good. Before even seeing her in the theatre, he relishes the thought of hearing her sing “Donna Anna in *Don Giovanni*” (71). This is not to say he is disappointed, however, when he arrives at the opera house to hear the final notes of Mozart’s *The Magic Flute* instead. Deckard listens passionately and recounts how “Papageno in his fantastic pelt of bird feathers had joined Pamina to sing words which always brought tears to Rick’s eyes” (77). But even as the reader begins to suspect that Deckard will not be able to carry the job out, he comments that this music too will soon end, and “eventually the last score of the music will be destroyed in some way or another . . . [and] the name of Mozart will vanish” (78). And Deckard the audience member changes back to Deckard the bounty hunter, the cruel but necessary “part of the form-destroying process of entropy” (78), although his conviction carries less force now, and he finds it necessary to justify having to kill Luft to himself (78).

The actual back-stage meeting with Luba Luft is hurried and tense. Saying that she has never even “been on Mars” (80) or “seen an android” (80), Luba reasons that she would be glad to help him, which she would not be if she were an android (80). But “an android,” Deckard replies, “doesn’t care what happens to another android. That’s one of the indications we look for” (80). The VK test primarily distinguishes between androids and human beings based on empathy, but Deckard’s way of phrasing this – and his conviction that androids do

not care about other androids – is somehow made ironic by the fact that he decides to rationalise the cruelties of his duties as a bounty hunter, rather than embrace the feelings he felt mere moments ago for her singing. Luft realises this as well and exclaims “then . . . you must be an android” (80). Deckard denies this, saying that he has been forced, in the past, to take the VK test himself, but Luba is relentless and suggests “maybe that’s a false memory. Don’t androids sometimes go around with false memories?” (81).

Since Ms. Luft does not believe that it is justified for Deckard to question her authenticity as a human the way he did, she gets in touch with a police officer, who actually arrests Deckard for harassment and impersonation of an officer of the law.²¹ The officer – a hulky figure named Crams – drives Deckard south, to a mysterious police station that has existed parallel to the one where Deckard works but of which he has for some reason never heard. At the mysterious station, he is detained for several hours and introduced to the top bounty hunter at the station, a man named Phil Resch. The Chief’s plan was to have Resch test Deckard to see whether he is an android or not. But when Resch urges Deckard to make his escape with him, seeing how “this building is android-infested” (99), Deckard gladly helps him and they end up on the run.

Despite the fact that Deckard finds it hard, for some reason, to feel sympathy for Resch, he wants to make an effort at working together so they can catch Luba Luft. So they double back to the opera house, fleeing and hunting at the same time. But when they get there, Luba is nowhere to be seen. They find out that she has gone to the museum, which is where they head next. The room is bright and the hallway is agleam when they find her and Deckard confronts her again. Luba manages to surprise Deckard again as well, though, by pointing to Resch and saying “you’re not human . . . you’re an android, too” (105). Deckard remembers her as she was singing Mozart and buys her the magazine she was perusing. He buys it for her

²¹ Crams does not know or believe that Deckard works for the police force.

with his own money, leading Luft to open up and confess that “ever since I got here from Mars my life has consisted of imitating the human, doing what she would do, acting as if I had the thoughts and impulses a human would have. Imitating, as far as I’m concerned, a superior life form” (106) – but Resch cuts her off there and fires.

Luba’s sudden death affects Deckard profoundly. He finds himself trying to make sense of the conflicting feelings he is feeling. Although Luba was supposed to be an android, a mere faulty piece of machinery gone vicious, Deckard had trouble reconciling this default view with how he actually perceived her. In fact, Phil Resch had seemed like the more bloodthirsty of the two, and Deckard realises that “I could have killed him without feeling anything, anyhow after Luba’s death” (114). Deckard then knows that there is a fundamental difference between *having the body of an android* and *behaving like one*. Phil Resch behaved like one, and Luba, the singer of beautiful Mozart and Pamina in *Die Zauberflöte*, did not.

The developments between Luft and Resch leave Deckard on the brink of an identity crisis, thinking “I rode down with two creatures, one human, the other android . . . and my feelings were the reverse of those intended. Of those I’m accustomed to feel, am required to feel” (114). Deckard has tremendous troubles trying to reconcile his job’s inhumane demands with his growing humanity. The effect is tumultuous. He becomes more erratic and has a misguided affair with Rachael Rosen. He had always felt weirdly attracted to her, but that does not explain, in his eyes, the overpowering sense of devastation he feels when the relationship inevitably sours. Moreover, Deckard’s changes go hand in hand with police force policy reform. The VK test has become outdated and superseded by the Boneli test, which is not based on empathy but on reflexes. The novel replaces one standard with another, and we are left to wonder about the validity of the previous test, which condemned many androids – and perhaps actual human beings according to some other standard – to death.

Deckard's problems eat away at him near the end of the novel. But they do not make him more understanding straight away. In fact, they seem to have the opposite effect. He finds out that the remaining androids, all three of them, are hiding in one apartment. As such, he goes over there, lets himself in and gets out his laser tube. A spectral image of Mercer appears at Deckard's side and warns him about Pris, one of the androids who looks like Rachael. He kills her and then moves on to Irmgard Baty, who asks: "Why didn't Pris get you?," to which Deckard responds "There is no Pris . . . Only Rachael Rosen, over and over again" (177), after which he kills her. Deckard then proceeds to kill the last one, Roy Baty, Irmgard's husband, who has let out a scream of fury at her death and fired twice at Deckard but missing; "Okay," Deckard says, "you loved her. And I loved Rachael. And the special²² loved the other Rachael" (177). And when it is all over, Deckard calls police Chief Bryant, his superintendent, to inform him of his success.

Leaving the apartment complex and going home, Deckard thinks "what a job I have to do . . . I'm a scourge, like famine or plague" (178). But when he gets home, his wife has news for him to cloud his day further. The goat he bought, the real animal he could finally afford, having killed a handful of androids in one day, is dead, gone. Stunned, he questions his wife on what happened, and she says "it didn't get sick . . . someone came here, got the goat out of its cage, and dragged it to the edge of the roof" (179). And even as his wife goes on about the needlessness and cruelty of it all, something falls into place for Deckard, who recognises, from his wife's description of "a small young-looking girl with dark hair and large black eyes" (179), the obvious features of Rachael Rosen. He calls the station to ask one of his co-workers for advice, who asks whether the goat was stolen by animal thieves, to which Deckard responds "life thieves" (185).

²² The special refers here to Isidore, the owner of the apartment complex. Specials in the novel refer to those type of people who suffer cognitive-psychological impairments as a result of radiation-related neurological damage.

Deckard is at his limit physically as well as mentally, and he starts to reflect on his experiences with Mercer, deciding he is envious of him. After all, “nothing is alien to him. But what I’ve done, he thought; that’s become alien to me. In fact everything about me has become unnatural; I’ve become an unnatural self” (182). Angry with the world, confused and numb, he stalks the streets for a good amount of time and loses track of where he is. He is, in fact, in a wasteland close to the Oregon border. He figures he is ascending with Mercer,²³ even though he did not grip the twin handles, and so he calls the secretary at the station, who says “you look . . . like Wilbur Mercer” (185), to which Deckard responds “I am . . . Wilbur Mercer; I’ve permanently fused with him. And I can’t unfuse. I’m sitting here waiting to unfuse. Somewhere near the Oregon border” (185). But, as Ms. Marsten points out, “there isn’t anything living up there near Oregon; isn’t that right? Aren’t you alone?” (185).

On his way back home, Deckard sees a toad, or so he thinks, because he has to look up the name in a book to realise that it is a toad. He puts it in a box ecstatically and takes it home with him. Back with his wife, and clearly in a better mood, he is telling her that “the legs of toads are weak . . . that’s the main difference between a toad and a frog, that and water” (190). But she “had discovered something; still holding it upside down she poked at its abdomen and then, with her nail, located the tiny control panel” (191). “Maybe I shouldn’t have told you,” his wife asks, but Deckard responds by saying “no . . . I’m glad to know. Or rather . . . I would prefer to know” (191), and he realises that “the electric things have their lives, too. Paltry as those lives are” (191).

The electric frog at the end does not have any of the organic life force the goat used to have. It is a machine at best, constructed from the outside and designed by organic entities. Nevertheless, the electric frog will do, in its own way. Deckard realises then that the value of inorganic life forms depends on things other than their inorganic nature. Since he interacts

²³ See the previous footnote.

with these life forms on a regular basis he must extend his capacity to care beyond what is real and organic and developmentally privileged. And Deckard also manages this somewhat near the end, although he still seems to bunch all electric life forms crudely together. He realises, in fact, that fighting against new determinants in his world's highly technological society is both foolish and harmful, and that it is of the utmost importance for him to find himself at ease with the world he lives in and his own place in it, and that his life choices should reflect that.

Conclusion

In *Do Androids Dream of Electric Sheep?*, memory that is located in the body exists in great tension with technologically reproduced memory. Deckard's initial meeting with Rachael reaffirms this. Memory that is somehow organically owned occupies a higher place in the novel's social life than technologically reproduced memory does, perhaps because memory located in the organic body is thought to come from within, rather than from outside, the body. Rachael occupies a place that is lower in the hierarchy because, as Deckard finds out, she possesses fake memories.

But from the beginning, the novel features what Hayles astutely calls "a series of reversals designed to defeat the reader's expectation" (170), although the themes these reversals apply to are more varied than Hayles imagines them to be. When Deckard meets Luft backstage in the opera house, Luft hints that Deckard might be the one with fake memories, reversing the earlier scene at the Rosen estate. The reversal of memory that is located in the organic body and memory that is technologically reproduced is at that point not quite completed, perhaps because Luft's suggestion, coming from an android, lacks the license to effect such change. But Luft's criticism does manage to shake Deckard's convictions, especially when Luft later dies at the hands of his cruel co-worker.

Near the end of the novel, we get the sense that Deckard has embraced the posthuman bodies he used to hunt. The frog he finds turns out to be a fake, but this has stopped mattering for him. In fact, he asks his wife whether she could order some food for the animal later on, which she does. And although electric frogs and electric sheep and electric humans are still coupled together by Deckard under the adjective *electric*, or technologically reproduced life, he also seems to have accepted their existence and the lives they represent in their own way.

Memory that is located in the organic body on the one hand and technologically reproduced memory and bodies on the other structure the novel by situating Deckard's belief in the value of essentialism at the beginning and his embrace of the posthuman liberation of the mind from the body near the end. Reversals allow Deckard to move from one end of the novel to the other, although always in a state of profound confusion. In the novel, Dick's treatment of memory and his posthuman views on the relation between body and mind then appears to be very structured since it provides narrative and character development alike.

In another way, the novel sort of glosses over memory and the (artificial) body. The building of artificial bodies is referred to, but much, including actual memory implantation scenes such as the ones in "We Can Remember It for You Wholesale," is left to the imagination of the reader. In this way, *Do Androids Dream of Electric Sheep?* differs from Dick's short fictions since it was never primarily intended as a larger exploration into the nature of memory, body and mind. The novel mainly uses these issues together with technology to ask questions such as whether technologically reproduced memories, minds and bodies can aspire to humanity or otherwise become valuable. And although this brackets the argument of previous chapters that Dick's explorations of memory and the posthuman relation between body and mind are unsystematic, it merely does so with very mild reservations.

CONCLUSION

The question must be asked again now, how a selection of his short fictions and *Do Androids Dream of Electric Sheep?* situate Philip K. Dick in current discussions on memory and the posthuman relation between body and mind. To show that relations between Dick's fiction and these discussions exist, theories of these two topics were explained and their traces in his work revealed. The first chapter showed that Dick has imagined memory as represented through metaphors and located in materials, as located in the organic and social human being, and as located in the media, while the second chapter made it clear that Dick envisioned the posthuman mind as liberated from a faulty body as well as completely unconnected to the body as such. The third chapter revealed that memory, body and mind play important narrative roles in the novel because they sustain its explorative narrative on humanity. It additionally underlined that memory is either authentic or inauthentic in highly technological, futuristic societies and that the embrace of posthuman views means a liberation from the essentialism that especially organic embodiment implies.

On one level, Dick's fictions situate him in present debates on memory, body and mind as a visionary. The relation between Dick and current theories is not one forged in contemporary times but one whose foundations were cast in the 50s and 60s, when the fictions were written. Connections between Dick's fiction and more contemporary theories have additionally only been realised after Dick's death and likewise after careful scrutiny of pre-existing stories and still-emerging theories, and their existence imparts visionary insight in Dick as an author of fiction.

On another level, Dick's fictions situate him in current debates on memory, body and mind as an imaginative author of science-fiction who continues to be relevant. Perhaps this is because the relationship between Dick's fiction and theory is not merely characterised by future-bound visions on Dick's part but also by retrospective reflection on the part of

contemporary theorists. It is astonishing that neuropsychologists such as Schacter referred to (the Ridley Scott film adaptation of) Dick's novel *Do Androids Dream of Electric Sheep?* to prove a point about the power and depth of subjective experience. It is also very telling that Landsberg used the same film and to a lesser extent the novel on which it was based, to make a case for her idea of prosthetic memory and Hayles referred to a great number of Dick's novels to illustrate a point about the dynamics between inside and outside for posthuman bodies. Because these theorists have made connections to either the film adaption of the novel or the novel itself, and it seems likely that others will do so in the future as well, the relevance of Dick's work for theorists appears to be secured for a long time to come.

Because theorists have embraced Dick's fictions, the latter have conversely added something to various theories. This is not to say that current receptions of Dick's work have transformed Dick into a theorist. Dick does not argue for single treatments of memory or posthuman views on the relation between body and mind. Rather, he is an imaginative author of fiction who explores a good number of perspectives in his short fictions. *Do Androids Dream of Electric Sheep?* partly appeared to clash with this, since its narrative relied on the systematic incorporation of perspectives on memory and technologically reproduced bodies. But the novel also counts as a single story and not really as an in-depth exploration of memory, body and mind for its own sake. As such, it was treated as an exception that nonetheless did not diminish Dick's status as an unsystematic explorer of a diverse range of issues.

The merits of Dick's works became clearest when they were read alongside the discussions of those theorists who also discussed him and needed a greater degree of imagination or conceptual license. "Progeny" fantasised that memories might be metaphorically represented in the same way Draaisma theorises but that they might be located in the brain, and "Some Kinds of Life" imagined memories to be located in materials of

memory like the ones Draaisma speaks about but also suggested that materials might literally be encapsulated by memory. Both stories suggested that what is perceived as metaphors and materials of memory depends on contemporary reproductive capacities. “The Electric Ant” reflected Schacter’s comments on the power of subjective experience and amplified them to the scope of Mr. Poole’s cognitive experiments, imagining that all experiences might always come from outside the body, and linking, in this way, Schacter’s treatments of memory to memory that is located outside the human body. “We Can Remember It for You Wholesale” reaffirmed the value of Landsberg’s idea of prosthetic memory and bolstered it through McClane’s sales pitch to become more real than real. Despite a lack of references to Dick in Lyotard’s *The Inhuman*, the expiration of the human body was imagined and overcome in “Mr. Spaceship.” And “The Infinities” finally envisioned the mind to be so flexibly related to the body as to achieve the full radicality that Hayles’ posthuman theory intended.

In my introduction, a brief overview was given of science-fiction’s features as a genre and Dick’s particular knack for using some of these features. Amongst them were science-fiction’s strong points and the genre’s future-bound potential, including the reactionary character between technology and man (Asimov 62), innovation and estrangement (Delany 191) and a propensity for “radical epistemologies” (Hayles 161). Separately, these features constitute a fragmented representation of the true character of brilliant science-fiction writing and Dick’s fictions more specifically. But together, they hint at something, a joined feature, one that shares its collective term with the two authorial qualities this thesis focused on, which is to say, the power to *imagine* and the ability to *conceptualise*. This thesis has owed much to this joined feature, which it has argued is abundantly present in Dick’s work and responsible for much of the relevance and value of his prophecies. And only the future will tell which of Philip K. Dick’s prophecies will come true, although all of them will probably reflect and complement what man theorises for a long time yet to come.

It has been argued that Philip K. Dick has great value as an author fiction and that his value is derived from prophecy and insight on Dick's part as well as the reception of his work by others. But in a broader context, this thesis also reveals something about the relationship between theory and science-fiction. There is still a stigma of sorts surrounding the genre of science-fiction. One wonders, for instance, whether Landsberg's and Hayles' numerous references to the power of the author's imagination are actually celebrations of quality rather than justifications for inclusion, (and if they are justifications, then the question arises why the inclusion of either Dick's work or science-fiction more generally has to be defended so ardently, etc).

In this light, this thesis constitutes an honest, concerted effort to treat a number of science-fiction stories with the respect they deserve. Despite their weird, outlandish tales of brain baths and energies, or precisely because of them, these stories are valuable explorations on their own as well as important additions to theory. It is very liberating that Schacter is able to refer to science-fiction in the way he does. And the value this thesis has in any case meant to impart has hopefully left science-fiction as a genre in a slightly better position for being received in theoretical circles. The genre has a lot to offer, but then this thesis also showed that.

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