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Nietzsche's Will To Power: A Naturalistic Account of Metaethics Based on Evolutionary Principles and Thermodynamic Laws

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I hereby declare that this thesis is the results of my own investigations, except where otherwise stated. All other sources are acknowledged by bibliographic references. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree unless, as agreed by the University, for approved dual awards.

I also declare that I am submitting this work with my supervisor's agreement.

Paul C Curtis. 22/9/21.

Nietzsche's Will to Power: A Naturalistic Account of Metaethics Based on Evolutionary Principles and Thermodynamic Laws.

By Paul C. Curtis

Submitted in Fulfilment of the Requirements
for the Degree of Doctor of Philosophy

Bangor University
School of Philosophy and Religion
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Abstract.

This thesis attempts to answer the question of what morality actually is, as well as judgements of 'good', 'bad/evil' from a scientific perspective. I review scientific literature and extract what I think is the best explanation for the foundations of moral judgements, how it evolved and what is judged. Essentially, I derive a fully naturalistic metaethical theory from the scientific literature. This I have called 'The Power Theory of Morality' as it shows that morality and judgements of good and bad are based on and can be reduced to power relational evaluations.

From this the thesis naturally flows from the findings of a power-based morality, psychology and metaphysics, to an exploration of Nietzsche's philosophy, particularly his stance on metaphysics and ethics and its relationship to science. Importantly, Nietzsche relied on the empirical findings and theories of the late nineteenth century, and these have been significantly updated in our time. My thesis goes some way to critiquing his ideas in relation to contemporary understandings of the nature of power and its relationship to morality—a notion vital to Nietzsche's philosophy. This analysis should provide new perspectives for evaluating Nietzschean ideas, particularly the 'will to power' and 'master/slave' morality origins. This thesis provides support for the 'will to power' as a description of the metaphysical principle underpinning nature, life and psychology and that power is at the heart of 'moral', 'good', 'bad/evil' evaluations, but it argues that Nietzsche's 'genealogy' is implausible and that the 'master/slave' distinction requires modification in light of scientific findings since his day.

Dedication:

For Dr Peter Ward (Uncle Pete). 1944-2017.

I wish you were still here to see the first fruits of our philosophical conversations, and my early suspicions that Nietzsche might have been right.

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Abbreviations

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- MOM (1879). *Mixed Opinions and Maxims*. (From HTH II).
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- D (1881) *Dawn of the Day*, trans Kennedy, J. (1911/2018). Anodos Books.
- JS I-IV (1882) *The Joyous Science*, trans Hill, K. (2018). Penguin.
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- BGE (1886) *Beyond Good and Evil*, trans Zimmern, H. (1997). Dover.
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- TI (1889) *Twilight of the Idols*, trans Hollingdale, R. J. (1968). Penguin.
- A (1895) *The Antichrist*, trans Ludovici, M. (2000). Prometheus Books.
- EH (1908) *Ecce Homo*, trans Kauffman, W. & Hollingdale, R. J. (1989). Vintage Books.
- WP (1901) *The Will to Power*, trans Hill, K. & Scarpitti, M. (2017). Penguin.

Abbreviation quoted by other authors.

KGW. *Werke: Kritische Gesamtausgabe*, founded by Giorgio Colli and Mazzino Montinari, ed Volker Gerhardt, Norbert Miller, Wolfgang Muller-Lauter, and Karl Pestalozzi (Berlin and New York: Walter de Gruyter, 1967–). The *Philologica* are quoted according to volume and page number. The *Nachlass* is quoted according to volume and fragment number. (In Emdem, 2014, p x).

Other abbreviations used.

PEM. Prime Ethical Mystery..... CNS. Central Nervous System

NET. Non-Equilibrium Thermodynamics..... ASD. Autism Spectrum Disorder.

ABiCAD. Autonomous Bio-Chemical Autocatalytic Dissipater...X. (In Chap 5) External World.

MEP/MEPP. Maximum Entropy (Production) Principle.....IS. (In Chap 5) Internal States.

MPP. Maximum Power Principle.vmPFC. Ventromedial Pre-Frontal Cortex.

EEA. Environment of Evolutionary Adaptation..... DNA. Deoxyribonucleic acid.

RNA. Ribonucleic acid.....ToM. Theory of Mind.

FMRI. Functional Magnetic Resonance Imaging.....PTSD. Post-Traumatic Stress Syndrome.

SPE. Stanford Prison Experiment.....U.S. United States of America.

E.U. European Union.

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This project is dedicated to Dr Peter Ward who provided invaluable encouragement, advice and teaching from my early A level studies, through my B.A degree to beginning this doctoral project, but alas, only ever got to see the very beginnings of it due to succumbing to cancer in 2017. He is deeply missed. Many thanks to his widow (Auntie) Jean for her continued interest and encouragement.

Paul C Curtis

17 August 2021

The Power Theory of Morality.

Introduction

There are three principal questions in philosophy for me. The first is, 1) Why is there something instead of nothing? As science generally refers to all existent things in terms of energy, the question becomes why is there energy and what is energy? The 'big bang' is not a creation story as such but just the thesis that all the energy in the universe was initially concentrated into a single 'point', which expanded, a tiny 'hot' beginning. It assumes the existence of the very thing whose origins we wish to explain. Scientific definitions don't help us much here either as energy is defined 'as the capacity to do work'—which sounds very much like a definition of potential. Work is defined as 'a measure of energy transfer when something is moved over a distance'. That energy transfer is called a 'force'. So, energy is the capacity to transfer energy or create a 'force'. A 'force' is something that can change the motion of an object. It appears energy is the thing that causes and the thing upon which things are caused as matter or objects are also manifestations of energy. Energy appears to be the 'God' of physics, its 'prime mover' and 'substance', something that cannot be created or destroyed. Power is defined as the amount of energy transferred per unit time.

2) The second biggest question for me is, what is consciousness and how does matter or substance create feelings, representations, or what we philosophers call qualia? And, 3) the third is, what is 'morality', and its components of 'good' and bad/evil'? Or put, another way, what is the underlying 'substance' of morality? That is to say, if I see something that I judge immoral what was just judged? What features did it have that made it 'immoral' or bad?

This thesis deals with the third question but in doing so cannot help but be engaged to some extent with the other two questions as will be seen, especially with regards to energy and power. Another big question that we encounter is, what is life? But this question is mainly a semantic question for scientists to argue over and to try and come to an acceptable definition of a certain kind of energetic process which will be elaborated on in Chapter One.

The necessity for the arguments of this thesis became apparent for me, following personal research into 'the problem of evil' and whether we can actually use this problem as a reason to doubt God's existence. For all its faults, at least religion has an explanation of sorts for

what good and evil is or entails. Good emanates from God, and evil from Satan and his demons. This is unacceptable from a scientific perspective, but just what is the scientific explanation for good and evil? This question is principally the one pursued here and the resulting thesis seeks to come to a coherent answer.

Before we begin, a quick cautionary note on language and its uses is required. Language can deceive and confuse things just as much as help us. In order to communicate and think about certain things we have to invent words to represent these ideas, concepts and objects in the world, and this has a direct bearing on the thesis. For example, we use the terms hot and cold to describe what we think are features of the world but in fact they are not. They are our subjective representation of reality—the true features of the world we judge are actually kinetic energy levels in atoms. Another example is that of ‘baldness’, which is a word we give to a fact of hair/ no hair. Without having to go into the philosophy of language very deeply, we often find the usage of words are vague, with undefinable parameters, and are employed mostly to convey a simplicity about facts that are ‘spectral’ and not simple at all.

Is a person bald after they lose their first hair or their last? Clearly neither of these answers is correct, so at what percentage of hair loss would we say a person was bald? Add to this the notion that words can act like ‘containers’ into which we ‘throw’ many loosely associated ideas, as such, word usage can be compared to ‘games’ or ‘art’. And so, we can begin to see some of the problems confronting a philosopher trying to find an answer to the question of what morality is. I assert now, and seek to prove in the thesis, that morality, good and bad/evil are very much vague ‘spectral’ representative terms for an underlying ‘natural’ fact like baldness or hot and cold. I wish to claim that there is no moral feature to the underlying energy of the world, ‘morality’ is a word given to a perspective based on a power relational evaluation, as are ‘good’ and ‘evil’.

The above shows there are still underlying mysteries, which to some degree will always have a bearing on the answer I—or anybody—will arrive at, as we learn more into the future, but this will always be a feature of any ‘naturalistic’ theory. It should always be viewed as a work in progress not an infallible ‘gospel’ truth.

Parts One and Two of this thesis are a presentation of a naturalistic theory of morality that emerges from relevant scientific research in the area. A metaethical theory needs to answer

such questions as, what is morality as well as 'good' and 'evil'? How does it 'come-into-being'? And, what, is actually judged when we consider such things? As Doris Schroeder writes, 'The challenge for evolutionary biologists such as Wilson¹ is to define goodness with reference to evolutionary theory and then explain why human beings ought to be good' (Schroeder, 2017). I haven't restricted my research to evolutionary theory, but it plays a fundamental part. Part One goes some way to providing coherent answers to the challenge Schroeder puts forward. As I shall argue, coherent answers can be deduced through an examination of accepted narratives about the nature of evolution, with regards to the underlying 'substance' that constitutes morality and moral decision making. In Part Two I then employ these theories to interpret relevant findings from disciplines of psychology and the social sciences. Parts One and Two are therefore an attempt to distill a metaethical theory from science and its metaphysical and physical constituents.

Science might seem an unlikely contributor to this debate as it is not suggested that evil or good has a physical substance that can be weighed in some empirical way—not weighed definitely, for there are no 'evil' atoms, and there is nothing created with 'evil' as a physical constituent. However, I will argue morality can be 'seen' and perhaps even measured in relational terms, similar to motion. You cannot see motion itself; it has no existence in itself; it is purely a relational concept. You can only see the motion of something by its relation to something else.

Science of course, does have a lot to say about the development of 'life' and humanity, in studies of anthropology, zoology, psychology, biology, microbiology, biochemistry and more recently evolutionary psychology, social psychology, neuropsychology and physics, and with contributions to life studies from the discipline of thermodynamics. All to some degree contribute facts and theories about how we behave and why we behave the way we do. It is important, therefore, for me to examine relevant findings from a range of disciplines in order to distill from them the key factors of a foundational 'substance' or 'relation' of morality.

It might be asked that, if evil and good are not physical do they even exist? Furthermore, can there be any moral 'facts'? A careful answer to these questions must be somewhat nuanced. As I shall argue, there are no universal moral facts and there is nothing objectively moral, and 'morality' only makes sense when it is contextualized within an interdependent group

¹ Schroeder is referring to Edward O Wilson the author of 'Sociobiology: The New Synthesis' (1975).

and an understanding of the continuation of 'life' in general, and human life specifically. It is my intention to demonstrate that science leads us to the conclusion that from our human perspective there is a 'moral' principle from which we deduce moral facts. However, those facts may change in line with maintaining the 'moral' principle. For example, it may be a moral fact that freedom of individuals contributes positively to the continued existence of humanity, but during a disease pandemic that threatens to extinguish populations the moral facts now change and freedoms will have to be curtailed. This principle can be deduced through reasoning and is attained from an enlightened position; it is not something we can access automatically as if it were 'hardwired' into our psyches.

I intend to show that the terms 'good', 'bad' and 'evil' are general terms of judgement about a complex continuum based upon power and status relationships. I define 'power' as the potential or ability to influence the world around you including yourself and others (potential for causation), and 'status' as a measurement of that power. Thus, an organism will have high status when it has a relatively high potential for causation, and low status if it has a low potential for causation. Status and power (causal influence) are manifested in many ways, including, most notably, health and physical status (ability to physically cause), sexual status (potential to attract mates and cause reproduction), social and intellectual status, which of course includes political and financial status (causal influence amongst conspecifics).

From the above definitions of energy, work and power, we can deduce important connections with good/ bad judgements. For example, a reduction in sexual status would be construed as bad, while an increase in physical status is good, etc. Also, when we think of power, we may often think in terms of political or Machiavellian manipulation, but this is only one aspect of power. As my thesis demonstrates, power is more ubiquitous; it is necessary and fundamental to everything we do, from scratching our nose, getting the kids to bed, starting a business to militarily invading a nation. If I were to take away your power to scratch, you would see it as a 'bad' thing, and you may judge me immoral for doing so, unless I can convince you that I do so for your greater 'good' such as to stop the risk of infections. That greater 'good' again being aimed at your overall physical status.

In Part One, I employ the term 'will' or 'the will' for the 'uncaused causes' seemingly necessary for the creation and sustenance of the universe. The 'will' refers to 'law(s) of nature', God, and, even 'the force'. It also reminds us that there are still many interesting philosophical questions regarding what a 'law of nature' actually is, how they come into

being, and in what form they exist? Although these specific questions do not concern my thesis, the notion of 'the will', will be expounded upon in all three parts of the thesis. I also use this term for consistency with Nietzsche whose relevant work I examine in Part Three.

An examination of Nietzsche's philosophy, especially his ideas of the 'will to power' and master/slave morality is necessary to my argument. As I shall argue, Nietzsche's understanding of the nature and dynamics of 'life' is limited and to some extent incorrect when we take into account new scientific understandings of the natural world that were unavailable to him. In particular, I shall argue that his understanding of 'life' fundamentally overlooks the importance and power of co-operation in natural selection. Furthermore, Nietzsche effectively set us a 'straw man' with his conception of human groups and communal states by referring to them as 'herd-like', rather than—as I go on to argue—a more useful interpretation of them as co-operative functional alliances or 'organisms'. I shall argue that master/slave morality can usefully be reframed or re-designated as 'parasite/ co-operator morality' and that 'morality' is meaningful only when applied within contexts of co-operation and the status of others (including non-humans and abstract groups). Finally, I wish to demonstrate that Nietzsche's understanding of the will to power has wider application and implications than he realised. While Nietzsche, concentrates more on its implications for the individual, and seeks to extract or elevate the individual from the herd by encouraging the individual to return to, what he construes as the essence of 'life' (and thereby regarding herd-like or slave morality as 'anti-life'), I wish to argue—somewhat ironically, that Nietzsche's position is effectively in opposition to the 'flow of life', and indeed to the notion of the will to power, In other words, that Nietzsche's position is unwittingly, 'anti-life'.

It is arguable that he in fact never saw the 'will to power' as a metaphysical principle but intended it as a biological or psychological one. In Chapter Fourteen of Part Three I explain why I disagree with this interpretation. In Chapter Fifteen I attempt to modify Nietzsche's genealogy of master/slave morality in the light of key conclusions drawn from theories of evolution by natural selection, symbiosis, synergies and co-operation in nature. My work here is important as it effectively updates Nietzsche's scientific grounding, from outdated understandings of natural selection as the cut and thrust of all out competition of 'nature red in tooth and claw', as widely understood in late nineteenth century Europe. This of course highlights one of the problems intrinsic to any naturalistic philosophy, and that is, over time, we learn new facts and construct new theories, thereby overcoming outmoded ideas, which

are thus disproved or seem more unlikely in light of new evidence. And this of course applies no less to Nietzsche's understanding of human life and behaviour as to any other.

I believe my argument helps to explain the phenomenon of our moral, good/bad judgements. What I offer is a model with inevitable 'holes' that over time will be filled in with new facts or theories complimentary to it, or that prove to dismantle it. Although I have consulted the most recent and valid scientific scholarship to help me ground my argument, I am wholly aware that nearly all scientific findings have their alternative theories and interpretations, even the 'big bang' theory. To consult every critique or alternative position in the literature would have proved impossible and would have been wholly unnecessary for the goal at hand, which was to find a plausible naturalistic metaethical theory, with which to reassess Nietzsche's philosophical position on morality and will to power.

This brings me to the question of why this thesis is needed and where it fits into the existing literature. There are two primary reasons to the first question. Firstly, I believe there is a need to substantiate a detailed and convincing metaethical theory within a 'naturalistic' context. Most treatises on moral phenomena tend to suffer from question-begging or circular explanations and tend to employ moral terms in unhelpful, 'loaded' ways within their explanations of moral phenomena; for instance, common terms such as better, higher, right and wrong. Or we find that theories are conditional and founded on ideas that need further explanation, such as a disposition, emotion, cognition or intuition—exemplified, for instance, in the following sentence taken from a recent book about morals:

In the scheme I have been discussing, there are two levels of evaluation. At one level, we have moral values. These are defined by moral sentiments and the constituent moral emotions. At another level, we have extramoral values (Prinz, 2007, p 305).

This is a typical sentence from books that set about explaining morality. At no point, are we ever any nearer to know what morality actually is or is based on. What would be the difference between, for instance a moral emotion and a non-moral or extra-moral emotion, sentiment or disposition? No answer is given. It is one thing to identify that moral evaluations involve emotions, but emotional content is not the only thing that makes something moral.

Nietzsche, perhaps unfairly, mocked Kant for his answer to the question he posed in the *Critique of Pure Reason*. 'How are synthetic judgments a priori possible?' Answer. 'By

means of a means (faculty).’ (BGE, 11). Any metaethical theory that ends similarly is essentially incomplete.

Metaethics tends to basically fall into the categories of natural and non-natural, cognitive or non-cognitive. ‘A natural property is a property which figures in one of the natural sciences or in psychology:’ (Miller, 2003, p 4). As this thesis is derived from a scientific exploration, the position it puts forward is naturalistic. It is mostly with the cognitivist/non-cognitivist distinction and categorisations where my thesis departs. I would argue that these distinctions become basically meaningless once there is a full understanding of how emotions and cognition work together in a kind of ‘feedback loop’ and how emotions themselves are results of sub-conscious cognitions, and act as our motivators or ‘value’ systems. Thus, my thesis is useful in helping to dissolve these distinctions, and as such it presents us with a new and important niche in the metaethical literature. Given that metaethics largely relies on these distinctions, my thesis undercuts and cuts across many metaethical theories and positions, and in doing so, my thesis demonstrates that they are—to a point—correct in their summations and conclusions.

I try to avoid categorisations as they tend to try to fit a dynamic ‘spectral’ world into static ‘containers’, and, from there, there is a tendency to hypostatise that idea as something ‘real’, such as life, religion, sex or gender. I understand the necessity of such categorisations and I certainly do not believe that all philosophical problems are simply confusions of language, but I believe it is always a good place to start with any word, to think about what it refers to in the ‘real’ world. Classic arguments against naturalistic metaethical theories, such as G. E. Moore’s (1903) ‘open question’ argument and ‘naturalistic fallacy’, seem to me to involve basic problems of linguistic representation, and involve philosophers getting lost in their own sophistry and linguistic ‘Kung Fu’. For this reason and the others mentioned above I will not attempt to categorise the ideas I employ in this thesis into existing ‘containers’, and will just get on with the job of what I feel is the best explanation for the phenomenon of morality and good and bad/evil assessments.

For a metaethical theory to be acceptable it must answer the following questions:

1. What is the underlying ‘substance’ or ‘thing’ upon which the above assessments are based? I call this the Prime Ethical Mystery (PEM). This will be a natural ‘thing’ for a naturalist theory.

2. How and why do we make these kinds of assessments?
3. Are there universal 'moral' facts or principles?
4. Why does 'morality' seem universal but often appears factually to be subjective or relative?

This list is not exhaustive but expresses my assessment of the most pressing questions. My thesis is mostly concerned with the PEM, but in the course of answering this question, I will also attempt to answer the other questions. These questions—in addition to further questions for evolutionary ethics that Schroeder poses from her aforementioned article—will be answered in Chapter Thirteen, the conclusion to Parts One and Two of my thesis. Other crucial and implicit questions and concerns of metaethics will be answered and tended to 'en passant', or at least the groundwork for their potential answers will be provided for.

There have been many books and papers written in recent years about scientific contributions to metaethics, particularly in assessing evolutionary claims such as Joyce's *The Evolution of Morality* (2007), or using scientific evidence to support existing metaethical positions such as Jesse Prinz's *The Emotional Construction of Morals* (2007). But they rarely help us to answer the PEM. My thesis will explain that moral assessments have a long evolutionary history that go back to the very foundations of life.

It is not obvious why Nietzsche's metaphysical theory of power—as the basis of everything including metaethics—has been widely, if not almost universally, ignored. Lamarck spoke of the 'power of life', Darwin about 'struggles for existence', and theories of thermodynamics encompassing all matter used terms such as energy and power. But Nietzsche is never mentioned in introductions to metaethics and rarely in introductions to morality, when he is mentioned it is usually in conjunction with nihilism.²

Nietzsche scholars seem to distance themselves from his theory of the will to power as a metaphysical principle, such as Leiter (2002), Clarke (2000), or on the rare occasions they do, they usually discard it as implausible, such as Richardson (2008). This position is unfair, given that, for instance, Darwin and Lamarck already hint in this direction, and Alfred Lotka's

² For example, Simon Kirchin's *Metaethics* (2012) has no mention of Nietzsche and Alexander Miller's *An Introduction to Contemporary Metaethics* (2003) has one mention of Nietzsche on p 160. Nietzsche's metaethics are not discussed. Also, Richard Norman's *The Moral Philosophers: An Introduction to Ethics*. (1983) has no mention of Nietzsche. See Peter Singer's (ed) *A Companion to Ethics* (1993), for Nietzsche in conjunction with Moral Nihilism.

1922 papers explicitly propose a principle of maximum power in biology. Part One of my thesis independently provides support for Nietzsche's theory. Chapter Fourteen in Part Three argues that Nietzsche meant the will to power as a metaphysical principle, and, moreover, could have *only* ever meant it as a metaphysical principle, given his philosophy in general.

This thesis therefore is perhaps a unique treatise, (and the second reason for its necessity) which fully supports Nietzsche's metaphysical and metaethical principle of a will to power, and his consequential interpretations of the two different moralities of master and slave. Nietzsche's philosophy has taken a lot of posthumous criticism and ridicule. I believe it is important that his detractors and others can see just how insightful and far ahead of his times he was in his philosophical understanding of both metaphysics and metaethics. Nietzsche and subsequently myself, might both turn out to be wrong, but his theory certainly does not deserve to be ignored in the way it has; it deserves serious philosophical and scientific attention. It is an empirical theory, therefore potentially falsifiable.

As to the question of where this thesis fits into the existing literature, it should be obvious from the above that it fills the relatively novel niche of supporting Nietzsche's metaphysics and metaethics. The philosopher Timothy McWhirter is one of a select few to publish articles and speak in support of Nietzsche's metaphysics, providing historic and contemporary scientific support for Nietzsche's will to power theory, now stretching into the domains of ecology, chemistry, biology, sociology, and cosmology. (McWhirter, forthcoming, p 21).³ If Nietzsche gave us the skeleton of a metaphysical/metaethical theory, then my research attempts to put flesh on it. Not surprisingly, I call my research 'The Power Theory of Morality'. Whilst the 'body' is still incomplete, I know of no other metaethical theory close to this level of completion, and I subsequently believe it is breaking new ground, potentially forging a unique foundational position within the literature.

Power is no stranger to the wide literature on morality, good and evil, from Plato until the present. It often lurks in the pages of an explanation, with the author seemingly unaware of its real sovereignty. For example, Prinz is happy to use Nietzsche's socially constructed moral theory for his own purposes, but he never mentions the will to power as its metaphysical foundation, although he does acknowledge that there is a link between power

³ Also see McWhirter (under review) and Plank (1998).

and morality. (Prinz, 2007, p 223). In Allen Buchanan's recent look into evolutionary ethics he also remarks. 'Remember, in the EEA [Environment of Evolutionary Adaptation] human power was the greatest resource of all' (Buchanan, 2020, p 114). Michael Ruse tells us of Julian Huxley's view that the progress of evolution 'consisted in maximizing control and independence' (Ruse, 1999, p 206). And that the destiny of man in evolutionary terms is to 'realize the maximum progress in the minimum time' (Huxley, 1948, p 11). Echoing ideas of power formulations in physics. This is also true of many scientific texts, especially about evolution. I will argue that Richard Dawkins' *Extended Phenotype* and the Zahavi's *Handicap Principle* are both really theories about power expression.

For these reasons I find the literature on evolutionary ethics and its critics incomplete and at times muddled and question begging. For example, Ruse an advocate of an evolutionary foundation to ethics, speaking of a deterministic challenge to naturalistic ethics tells us. 'The most crucial presupposition of ethics, speaking now at the normative level, is that we have a dimension of freedom' (Ruse, 1995, p 252). However, Ruse's naturalistic theory entails that it is our genes that instantiate a belief in morality, and that morality is a kind of illusion. (Ibid, p 250). Yet he gives a wholly deterministic account of our beliefs in morality when he says, '[i]t is the structuring of our thinking in such a way that we believe in moral norms.' (Ibid, p 253). There are similar assumptions in the challenges to naturalistic ethics, for example Peter Woodcock seems to be disappointed that evolutionary ethics does not provide what he calls a 'categorical justification', assuming that morality is categorical, and that it can only provide 'instrumental justifications' (Woodcock, 1999, pp 287-288). These kinds of assumptions such as freewill and a universal foundation have to be justified in their own rights and not simply assumed as providing an argument against a naturalistic theory. Woodcock also seems to place a lot of faith in the merits of the naturalistic fallacy, an argument which is dubious at best as mentioned earlier. The literature tends to deal with the evolutionary principles of fitness and survival rather than the underlying necessity of power and causation to achieve it. This is why my research is different and necessary and of course why it supports Nietzsche's early critique of Darwinism to be reviewed in Part Three.

One last point to make about this thesis is that because it is about the foundational elements of moral meaning and concepts relating to moral terms, any usage of such morally-loaded terms like good, bad, evil, better, worse, positive, negative, advantage, etc, will always have to be justified by its relations. For example, why is it better? In what way is 'good' or 'bad' being used? This, I believe, may well make this thesis original in its conception. This thesis

is about the moral and functional uses of the terms good and bad, as they are related. I make no claims at this stage to other uses of these words, such as in the aesthetic sense of a good book or a bad movie. To understand why power relations form the basis of morality we must start at the very beginning, literally.

Part 1

Power and Evolution

Chapter 1

Thermodynamics and the Creation of 'Life'

In this chapter I will examine key theories concerning the creation of 'life' starting from the big bang and culminating in basic life forms at the microscopic level. I do so with the intention of drawing out possible metaphysical foundations for 'life' and a potential ground on which natural values might stand.

One thing that many scholars of science and religion tend to agree on is that there was a moment of creation, a beginning to the known universe. The 'nature' of God or the laws or conditions necessary to cause what is colloquially known as the 'big bang' is as far as I can gather unknown to science and the theologian, however there is of course much speculation and an abundance of theories about God's nature or the conditions necessary for such an event. I use the aforementioned term of 'the will' as a 'catch-all' term for either God or the laws of nature. I will elaborate the 'nature' of this 'will' throughout the thesis. This term is fitting as it straddles the two perspectives above. If creation were not inevitable but the product of a choice, then it would be of 'free will'. Similarly, if the 'big bang' were somehow the product of laws which 'just are' or the effect of some kind of 'pre-natural laws' and in some way inevitable, then 'will' in this sense is a fixed will of the 'laws of nature' or a product of them.

The 'big bang', it is thought, brought forth the material that in accordance with 'the will' produced forces which led to the formation of elemental particles of matter such as quarks, neutrinos, photons, electrons, etc. Some combined to produce more complex matter such as protons and neutrons, which with electrons, combine to form the first basic atoms, hydrogen and helium. 'Stars are formed when particles gather together through their mutual attraction' (Zhi & Xian, 1989, p 93). Gravitational forces then come into play as well as nuclear forces, which produce heavier elements within the star eventually leading to its collapse and

supernovae, which in turn produces even heavier elements and sends material into space to coalesce into planets, comets, dust clouds, nebulae, etc. Some of those planets comprise elements such as carbon, hydrogen, nitrogen and oxygen, which come together through 'the will' to form stable states, which in turn, produce water, hydrocarbons and other simple molecules that in their turn produce more complex molecules, which become the 'building blocks of life'.

The above, simplistic description already conceals the mystery of what, exactly, 'drives' these elements toward order, combination and complexity? What is 'the will' willing? Wherever we look within this scheme we find order—galaxies rotate, it is thought, around black holes due to gravitational forces; while stars form and shine, planets orbit almost like clockwork around their stars and moons around their planets; and organisms such as humans, trees and animals are vast organisations of functional cells, themselves very complex entities. The question remains, where does all this order come from? And how did it form? After all, doesn't morality help *order* our societies? We need to know more about the foundations of 'order'. For this we need to take a brief look at energy flow and thermodynamics.

Most of us are aware the first law of thermodynamics is that energy cannot be created or destroyed, but it can be converted into different forms. These forms of energy are potential-gravitational, kinetic, electrical, chemical, magnetic and energy in thermonuclear bonds (Schneider & Sagan, 2005, pp 26-27). We have all heard the expression 'nature abhors a vacuum' but a more accurate rendering might be that 'nature abhors a gradient' (Ibid, p 72), because it is always trying to bring energy gradients to equilibrium.

This is how we get motion such as heat flow from hot to cold. If we heat one end of a metal rod we will end up with a thermal gradient developing and the individual atoms at that end 'jostle' the atoms next to them, and down the rod until equilibrium is reached or the rod reaches an average temperature across its length. If the heating is stopped, ultimately it will also come into thermal equilibrium with the surrounding air. This 'flow' caused by the energy gradient can be used to do 'work'. This flow is referred to as 'free energy' or exergy. Work is defined as motion against a force and energy is defined as the capacity of a system to do work (Atkins, 2010, pp 16-18). A system in this scheme could be as big as the universe or as small as a molecule. Power in physics terms is work divided by time, so power, energy, work

and force are all bound up in our thinking of causation and one's ability to cause, to essentially interact and influence. This is my working definition of 'power' for this thesis.

Another term, 'entropy', needs to be understood. In simple terms we can interpret this as 'exhaust' energy—it is the energy, usually heat, that we are unable to 'order' or use to do work. Energy doing work to some extent can be viewed as 'ordered', and entropy, by contrast, as chaotic and unable to be ordered. The second law of thermodynamics states that 'the entropy of the universe increases in the course of any spontaneous change' (Atkins, 2010, p 49). That is, every time a change in energy occurs the universe progresses toward disorder. But if this is the case why are there so many ordered things? To understand this, we must look at the branch of physics known as non-equilibrium thermodynamics (NET). The universe and of course our planet are not in equilibrium. The 'big bang' sets up a large energy gradient which is then dissipated. The universe is thought to be expanding and our sun heats the earth, which then sets up an energy gradient with space. We have therefore 'free energy', and that is energy with which work can be done.

Imagine our earth now but without any 'life' forms. In this scenario, the sun will heat the ground and waters of the oceans, and these in turn will heat the air at different rates. The ground tends to heat faster and reach higher temperatures than water, but water retains the heat for longer. Add to that the shape and tilt of the earth toward the sun and you will find thermal gradients both in air and sea, causing movements known as currents. This also creates pressure gradients. The high air pressure flows toward the lower air pressure, and the hot air flows toward the cold. Here 'nature' is trying to reach equilibrium or dissipate the energy gradient. This dissipation can—in conditions far from equilibrium— spontaneously 'self-organise' dissipative structures. The most famous experimental phenomena showing this 'self-organisation' is known as the 'Bénard instability' where a thin liquid layer is heated from below setting up a thermal gradient. At first the liquid heats through conduction but when a certain threshold is reached the 'system' reorganizes itself into hexagonal convective cells. 'A convection corresponding to the coherent motion of ensembles of molecules is produced, *increasing the rate of heat transfer*. Therefore, for given values of the constraints (the gradient of temperature), the entropy production of the system is increased' (My emphasis), (Prigogine & Stengers, 2017, p 142). If we call the heat transfer the 'work' that nature is trying to achieve, then by creating 'order' or organisation in the system, it increases the rate of transfer, which means that 'nature' has increased the 'power' of the system. Order or organisation seems to correlate with increased power.

On earth we can see these dissipative structures in the formation of hurricanes and tornadoes, where countless billions of atoms and air molecules are 'self-organised' to dissipate temperature and pressure gradients; the larger the gradient, the larger the organisation of molecules and the more powerful the system. Hurricanes in the North Atlantic that ravage the Caribbean and Gulf of Mexico start out as depressions near the equator, they move westward feeding off warmer shallower seas, intensifying the pressure and temperature gradients reaching a maximum strength often as they reach landfall. They usually start to track North and eventually East and lose power over the land with less water being introduced into the system, and also when, over cooler seas, the temperature gradient begins to diminish as the dissipative structure (hurricane) can no longer be maintained, and as such, it has moved toward equilibrium with the environment which is nature's 'purpose' for it. We give these hurricanes names. They often seem to have clear boundaries, as they 'ingest' energy from around them and dissipate it as waste, entropy, they almost act like a living organism, a kind of 'self'.

Jeffrey Wicken states:

With the emergence of self-perpetuating patterns of Im^4 flow in the pre-biosphere, the fundamental properties of biological systems begin also to emerge. The first of these is the very concept of the 'self', for which there is no analogue whatever in physics or chemistry. The self may be regarded as a center of transformational activities defined by certain internal functional relationships which it seeks to maintain through acting on its environment in certain ways. Goal-orientation, or teleonomy, enters the natural world at this point. Accompanying this concept of self as an organized, goal oriented system is that of 'exploitation' as a genre of behavioral process that serves and maintains the self. Exploitation requires a self-referential center of activity which both causes certain environmental transformations, and which also profits from these transformations through continuance as an entity or as a type. The fundamental dichotomy of 'self' and 'environment' originates here, a dichotomy that the progressive, anagenic movement of evolution has served to define over the millennia in ever-sharper terms. This dichotomy emerged in response to specific thermodynamic conditions prevailing in the pre-biosphere by providing additional routes for le^5 dissipation not utilized in prebiotic evolution. (Wicken, 1980, pp 16-17).

⁴ "The Im of a system is a measure of its potency for irreversible change, and irreversible processes in nature are those that provide channels for its dissipation." (Wicken, 1980, p 11)

⁵ le is the energetic mode within Im , the other two modes are configurational (lc) and thermal (lth). (Ibid, p 10-11).

Wicken here explains the connection from the prebiotic to the biotic in terms of dissipative systems, that have correlates in biology. By way of a link to these ideas, imagine that our hurricane had the capabilities to evolve new functions, for example a 'sensor' at its boundaries for temperature and moisture and a way of propelling itself always toward the hotter moister environment. If it could evolve such traits, it would in theory be able to sustain itself perhaps indefinitely, 'feeding' on warm seas and never straying into environments that would see it come to equilibrium. It would develop a 'goal-seeking' behavior reminiscent of a 'will to live' or a continuation of existence. Although it would not be conscious or have 'intent', we might allow it a 'will' or purpose. In this respect, it would become both its own cause and effect.

Perhaps it is worth just thinking of how this 'will' would originate. As a normal hurricane, it is at the mercy of other deterministic forces, yet with only a simple 'evolved' trait of self-sustenance, it can seem to have 'will'. As its own cause and effect, it seems to be a new kind of 'emergent' phenomena, perhaps with the beginnings of a 'freewill'. However, it seems that a 'goal' or purpose is a necessary prerequisite for any 'will', such as self-sustenance, but allowing a goal or purpose as a driving factor seems to disqualify concepts of 'free'. It may be the case that the choosing of goals would qualify as a 'freewill' but this is still only contingent on one being able to choose, that is to be in existence or self-sustained. Perhaps notions of 'will' are incompatible with concepts of 'freedom', or freedom is a contingent, emergent phenomena based upon determinism. The 'evolved' hurricane in my example, however, would seem to 'value' warmer seas compared to colder ones, after all that is what sustains it, what gives it its power.

The environment acts as information for the hurricane's 'sensors' to process and move. The information, sensors and propulsion act as a cybernetic control system for my theoretical hurricane. This 'will' of the hurricane thus needs 'feedback' or information from the environment. Peter Corning tells us: 'Without some internal reference signal (teleonomy), there can be no feedback control' (Corning, 2005, p 324). This internal reference signal constitutes its 'values'—in this case warmer seas, based on the 'prime value' by force of continued existence. More on this shortly. Of course, air cannot create the necessary structures for these functions to evolve, however; thankfully for us; certain chemical interactions can. This leads us to biochemistry and the creation of 'life'.

Wicken, speaking of Kant's description of life in *The Critique of Judgement* (1790), informs us:

In Kant's conception, an organism was a 'natural purpose', in which each part and process was jointly cause and effect, end and means, of the operation of the whole. This remains an extremely useful definition. First, it states explicitly the circularity of biological causation and teleonomic organization with which any theory of emergence must come to terms. Second, it can be brought readily into the framework of contemporary science in a way that makes contact with the *ecological* identity of organisms. In this definition, Kant had pithily captured the concept of *informed autocatalysis*. A 'natural purpose' is an informed autocatalytic system or AO—a system with an internal organization of kinetic relationships able to maintain itself by pulling environmental resources into its own production. The fact that an organism behaves as its own end and means through participation in the dissipative flow of nature suggests a deep connection between self-organization and the Second law. (Wicken, 1987, p 31).

Wicken is showing us the connection from the second law of thermodynamics to 'life' as an 'organised' autocatalytic dissipater. Chemistry and particularly biochemistry is replete with catalytic and autocatalytic processes.

Let us imagine again a hypothetical example, molecule A reacting with Nitrogen (N) to catalyse molecule B whilst giving off Hydrogen (H), molecule B also reacts with N to produce molecule C also giving off H and molecule C reacts with H to produce molecule A. We now have more molecule A, which produces B, producing, C, etc. As long as there is a constant supply of N, molecules A, B and C will grow in number exponentially. They form an autocatalytic loop. N is their fuel, this process would create heat or 'entropy' as waste energy, the H gets recycled. We would not consider this chemical autocatalytic process 'life' as it would just be a growing mass of chemicals which eventually would deplete the environment of N and then stop. This example was inspired by Robert Ulanowicz who remarks. 'Almost by definition, autocatalytic configurations are *growth enhancing* in the sense that greater activity is fostered.' (Ulanowicz, 1995, pp 255-256). He continues:

What is not always made explicit, or often not even recognized, is that an autocatalytic configuration also exerts *selection pressure* upon the characteristics of all its constituents. If a random change should occur in one member such that its catalytic effect upon the next compartment is accelerated, then the effects of that alteration will return to the starting compartment as a reinforcement of the new behavior. The opposite also holds—should a change in an element decrement its effect on downstream elements, it will be reflected upon

itself in negative fashion. There is an *asymmetry* to autocatalysis that ratchets all participants to ever greater levels of performance. (Ibid).

This is clearly an important feature of autocatalysis as it is also the principle feature of evolution by natural selection although we may replace the word performance with power. If the ‘work’ of A, B and C is to ‘burn’ N then producing more A, B, and C does more work in the same time therefore greater performance means an increase in power, an increase in its causation over the environment, reducing N. Or as Ulanowicz remarks. ‘Taken as a unit, the autocatalytic cycle is not simply reacting to its environment; it also actively creates its own domain of influence’ (Ibid, p 256). ‘Thus, one effect of autocatalysis is to increase the total system throughput’ (Ibid, p 259).

To go from catalytic and autocatalytic chemistry to ‘life’ basically requires something akin to molecules A, B and C forming a more complex ‘allied’ molecule a ‘symbiosis’ of A, B and C (ABC) that now replicates this alliance molecule rather than just the individual chemical compounds. It is still autocatalytic but now self-replicating. It now metabolises and self-replicates and this is the basic definition of ‘life’. When we allow Ulanowicz’s observation that selective pressure exists within it to greater or lesser ‘performance’ or power then we have one foundation for evolutionary phenomena in ‘life’. It thus is not too difficult to see how this autocatalytic process will create increasingly more complex molecules of greater dissipative power. Life as we know it, resulting from DNA and RNA is hugely more complicated than the simple autocatalytic process outlined above, although chemical autocatalysis is one of two camps that ‘origins of life’ researchers endorse as foundational,⁶ it is, I suggest, the one that seems most likely, although the origins of ‘life’ are still very much a mystery to be solved.

1.1. ‘Life’ as ABiCADs.

‘Life’ is in scare quotes because—as I outlined in the Introduction, language can mislead us. If we just think in terms of Autonomous Bio-Chemical Autocatalytic Dissipaters (ABiCADs), constructed in the above theoretical sense, we need not confuse ourselves with unnecessary concepts. However, for this thesis I will use the term ‘life’ and organism as

⁶ For beginnings of life theories see, Margulis & Sagan, (1997), Dyson, (1999), Nurse, (2020), Pross, (2012), and for a more detailed explanation of processes from the ‘big bang’ to ‘life’ see Baggott (2015).

synonymous with ABiCAD.⁷ An ABiCAD uses available 'free' energy, and it does work such as metabolises, and replicates and dissipates less energy in the form of waste or heat entropy. Margulis and Sagan in *Microcosmos* (1997) give a basic summary of the formation of these cycles and hypercycles from base gases to RNA and DNA that make up life as we know it. 'These cyclical processes formed the basis not only of the first cells but of all the myriad structures based on cells and their products that followed.' (Ibid, p 53). Richard Dawkins sums up this stage of development by saying, 'The earliest form of natural selection was simply a selection of stable forms and a rejection of unstable ones' (Dawkins, 2006, p. 13).

These complex stable molecules probably formed in the early oceans of earth creating what is known as a 'primeval soup', a cocktail of complex molecules such as amino acids which are various combinations of carbon, oxygen, nitrogen and hydrogen (although there are plentiful other theories of where life first originated). One can imagine a chain of autocatalytic molecules steadily improving their functionality in metabolism—as Ulanowicz has suggested—until eventually a molecule was created that could replicate itself. The precise details of how it came into creation are not important to the overall thrust of this thesis.

The creation of a replicating molecule, perhaps the first necessary 'gene' or component of a gene, needed for every organism that follows is huge philosophically, as it is, I suggest, the emanation, of a 'will to life',⁸ the birth of biology. Prior to this moment, we had physics, chemistry and 'the will'. We now have the first 'physical' entity that creates in the image of itself. We could perhaps call this the 'W-molecule'. Or as the first 'unit of heredity' the 'W-gene'.⁹ But as Ulanowicz remarked, there is an asymmetry toward greater power or 'performance' a 'selection pressure' in autocatalysis. Our fictitious ABC molecule and the later more complex DNA molecule building ABiCADs, increases power by autocatalytic 'growth', and replication, thus we must concede that self-replication is just an increase in power, increasing the amount of molecule ABC or multiplying organisms replicating DNA increases dissipation of the energy gradient, N in the ABC case, life then is like a tiny autonomous 'hurricane' in my theoretical example above. So 'will to power' is perhaps more

⁷ Although I will come to use the term social organism which is a group of ABiCADs working together forming a co-operative structure, such as a tribe.

⁸ The term used by Schopenhauer in his classic work *Die Welt als Wille und Vorstellung* first published in 1819. See Schopenhauer (1969) 'The World as Will and Representation'.

⁹ Gene is defined as a unit of heredity composed of Deoxyribonucleic Acid (DNA), Oxford Dictionary of Biology (2015). DNA (and RNA) is a nucleic acid.

scientifically and empirically accurate and meaningful than will to 'life' as Nietzsche perhaps foresaw. We will speak more on this in Part Three.

Wicken makes the point that:

the biosphere is for all practical purposes a closed system; as such, its atomic constituents remain virtually unchanged with the passage of time. They therefore constitute a stable basis set of elements that can be combined and permuted within the limits of chemical possibility to generate a vast range of molecular and supramolecular structures. Atoms cannot, however, be broken down by chemical processes. There is thus configurational bias toward increasing molecular complexity in evolution, since it is by permuting this atomic basis set into larger, more heterogeneous structures that new microscopic configurations of matter can best be generated. (Wicken, 1980, pp 11-12).

He adds, 'any quasi-stable set of structures (e.g. amino acids, nucleotides, proteins) becomes in turn the raw material for the production of still other, higher-order structures' (Ibid).

Dawkins summarises the event as follows: 'suddenly a new kind of 'stability' came into the world' (Dawkins, 2006, p. 16). It should be obvious that, gradually, the replicating molecule will become more abundant than non-replicating molecules. Dawkins makes the important point that in any copying process slight discrepancies or errors are inevitable. Because there are variations, these differences or mutations to the 'W-gene' set in motion the very basic form of what we now term 'evolution' in the biological sense. These mutations would lead to changes in things like the rate of copying (fecundity), the longevity of a molecule (how long it can exist before breaking down), or its copying accuracy (fidelity) such as the building of a 'template' molecule like DNA carrying 'information'.

Those that replicate faster or exist for longer or copy with more fidelity will eventually make up the majority of the population. These qualities thus lead to genes that vary in three dimensions: fecundity, longevity and fidelity. If a gene—let's call it 'gene X'—copies quickly with high fidelity and high longevity, it will over time become the most abundant. We should perhaps here pause and highlight a very important point.

1.2. The 'Prime Value' for ABiCADs.

Continued existence becomes by brute force the 'prime-value' of the 'will' of the replicating molecules. This is not a conscious intentional 'will' of course, but things that go on to constitute 'existence' will only be the things that are able to exist. This tautological claim is deeper than it first may appear as it forms the core of the 'Anthropic Principle'. Replicating molecules and organisms that cannot manage continued existence, for reasons we will shortly outline, will of course disappear or become extinct. This world is therefore a 'struggle' for existence, a competition for resources or 'energy' to maintain continued existence in an environment of evermore powerful ABiCADs, due to the aforementioned asymmetry in autocatalytic progression. This gives rise to that idea of intrinsic 'selfishness' in biological organisms. However, 'will to exist' is just a brute fact, as any organism which displayed behavior which did not include a 'will to exist' would not exist for long and as we shall see co-operation is often a more successful survival strategy than conquest.

Competition and co-operation are fundamental properties of evolution and natural selection. This co-operation between genes is at the heart of Peter Corning's 'Synergy Hypothesis' of evolution. He writes:

Finally, we can discern, at an early stage of the evolutionary process, a principle that will be elaborated on below, namely: 'competition via cooperation.' Cooperation is not a peripheral survival strategy in a world governed by competition. The synergy resulting from cooperative interactions of various kinds provides the functional *raison d'être* for biological organization and for the observed evolutionary trend toward greater complexity. (Corning, 2005, p 101).

We will look at evolution by natural selection in subsequent chapters but the important thing here to appreciate is that both competition and co-operation via functional synergy are power related and related to each other. Molecules can compete to form autocatalytic cycles as Ulanowicz has suggested, which co-operate to maintain the cycle and increase power which eventually form life. These are bodies of co-operating and competing molecules or genes which themselves co-operate and compete for energy resources with other ABiCADs. Power is demonstrated by competition and can often be increased by co-operation. Synergy is an increase in power—a combined effect greater than the sum of the individual parts. Power is therefore absolutely fundamental to evolution by natural selection. The evolutionary

'drive' toward greater complexity is also the evolutionary 'drive' toward greater power, in line with the second law of thermodynamics, trying to dissipate an energy gradient.

1.3. The Maximum Entropy (and Power) Production Principles.

Before I conclude this chapter on thermodynamics and life and move on in the next chapter to consider the significance of genetics and natural selection, we need to examine some crucial thermodynamic principles in more detail, notably, the maximum entropy production principle (MEPP or MEP), maximum power principle (MPP) and minimum entropy production and minimum dissipation principle. This is because these appear to contradict each other, but it has been shown, they are, in fact, consistent with each other. For example, Leonid Martyushev and Vladimir Seleznev conclude, 'MEPP and the minimum entropy production principle do not contradict one the other. The latter is a consequence of the former' (Martyushev, & Seleznev, 2006, p 41). Similar conclusions are expounded in relation to the principle of minimum dissipation: 'It is shown that Onsager's principle of the least dissipation of energy is equivalent to the maximum entropy production principle' (Zupanovic, Kuic, Bonacic Losic, Petrov, Juretic & Brumen, 2010, p 996). The main point here is that these minimum principles are special cases of MEPP. MEPP seems to be the dominating principle among them.

Axel Kleidon tells us: 'The proposed principle of Maximum Entropy Production (MEP) states that systems are driven to steady states in which they produce entropy at the maximum possible rate given the prevailing constraints' (Kleidon, 2009, p 653). Kleidon later continues:

Note that entropy production is closely related to the ability of a system to continuously perform work. In a steady state, the rate at which work is performed ($P=dW/dt$, the 'power' of a system) balances the rate at which free energy is dissipated. (Ibid, p 655).

Power is therefore directly linked to entropy production and this is driven to maximum possible rates according to MEPP/MEP.

In 1922 Alfred Lotka first proposed a principle of maximum power. He states, 'If sources are presented, capable of supplying energy in excess of that actually being tapped by the entire system of living organisms, then an opportunity is furnished for suitably constituted

organisms to enlarge the total energy flux¹⁰ through the system' (Lotka, 1922a, p 147). He later reinforces this idea:

In every instance considered, natural selection will so operate as to increase the total mass of the organic system, to increase the rate of circulation of matter through the system, and to increase the total energy flux through the system, so long as there is presented an unutilized residue of matter and available energy.

This may be expressed by saying that *natural selection* tends to make the energy flux through the system a maximum, so far as compatible with the constraints to which the system is subject. (Ibid, p 148).

He also remarks.

The question was raised whether man has been unconsciously fulfilling a law of nature, according to which some physical quantity in the system tends toward a maximum. This is now made to appear probable; and it is found that the physical quantity in question is of the dimension of power, or energy per unit of time (Ibid, p 149).

This general principle is finding much empirical support in modern studies for example speaking of constraints to photosynthesis Kleidon writes:

We can next ask how such thermodynamic constraints are for biological systems more generally. ... we used the thermodynamic limit of maximum power to infer the extent of convective mass exchange between the surface and the atmosphere. The ability of this approach to reproduce observation-based datasets, ... suggests that convective mass exchange evolves to and operates near this thermodynamic limit. If we then transfer this emergent behavior of convective motion to biologic activity as a dissipative process, it would, likewise, suggest that the activity of an ecosystem would evolve to, and eventually reach a thermodynamic limit of maximum activity, translating into maximized photosynthetic rates. These rates would then be predictable from the thermodynamic limit, similar to how rates of terrestrial photosynthesis were inferred in the above analysis. This notion is consistent to what Lotka already formulated in his works about a hundred years ago (Lotka, 1922a, b), namely, that evolution by natural selection should favor organism of greater power (with power being the generation rate of chemical free energy). The evolution to this state of maximum productivity would, however, be associated with a much longer time scale than that

¹⁰ Lotka says "The term *energy flux* is here used to denote the available energy absorbed by and dissipated within the system per unit of time." (Lotka, 1922a, p 150)

of atmospheric motion, so it would represent more of an evolutionary direction rather than a fast, emergent outcome. (Kleidon, 2020, p 25).

Kleidon indicates an example of the rather elusive 'depending on constraints' aspect of the maximum power principle. These 'constraints' highlight the interactive nature of the world. Another famous example would be the extinction of the dinosaurs. Evolution presumably progressed to produce immense powerful organisms that required huge amounts of available energy to sustain themselves, but if their energy source, the sun's radiation, was blocked out due to a giant dust cloud from an asteroid strike or similar on earth, then a new constraint is introduced to the energy system. Many plants would no longer get enough light to survive, herbivorous animals then starve and die and the carnivores that live on these ultimately die too. A reduction in power like this in the earth system in no way contradicts the maximum power principle in natural selection.

Natural selection will also not only progress toward maximum power but also efficiency as Howard Odum reminds us:

Production, growth, and consumption require that available energy (exergy, potential energy) be used up in work processes and the energy dispersed in degraded form. The natural processes of design selection during self-organization cause the systems to develop that maximize power intake and useful consumption. In each energy transformation an optimal intermediate efficiency is selected that maximizes power. (Odum, 2007, p 59).

Clearly it makes sense in a competitive world not only to achieve maximum power but also do so with as little energy as possible or you might end up like the dinosaurs when available energy is scarce.

MEP is a thermodynamic principle applicable universally and not only in life, which as pointed out is simply a replicating, dissipative organisation of chemistry in line with MEP. Although not yet a separate 'law', there is much evidence supporting the metaphysical principle of a 'will to power' in nature resulting from the second law of thermodynamics and as Kleidon suggests an 'evolutionary direction'.

In this chapter I have sought to explain how 'life' can be viewed as autocatalytic bio-chemistry brought into existence by the dissipation of energy gradients in conjunction with the second law of thermodynamics, and, subsequently, that power, energy consumption and

dissipation are intrinsically linked. Nature here seems to be 'willing' itself toward maximum entropy production by increasing the power in a system where possible, and it does so often in the form of increased organisation and complexity. This autocatalysation provides the conceptual basis for differentiating between 'self' and environment or 'other', homeostasis; and is also growth-seeking.

The first manifestation of the will to power in this scheme, I suggest, is in the 'drive' to dissipate energy by increasing power in the system, usually by forming an 'organisation' or sense of 'order'. The second manifestation of the will to power is in the creation of ABiCADs competing for energy resources with a natural 'ratcheting' upwards to greater power. Replication is not only a new way of self-sustaining into the future, but also represents an increase in power; it is nature's way of increasing dissipative structures and the power in the system. This creates competition and co-operation in the 'struggle' for self-sustenance. Therefore, as long as free energy is available, a giant 'pyramid' of various levels of ABiCADs could be formed to dissipate as much energy as possible, each level with competition at that level constrained by the environment including other ABiCADs. Each level provides energy for the next level of power in the pyramid. This is akin to the driving force for evolution by natural selection. It follows that the 'will' in life is the same as the 'will' in nature. It does seem to be that 'the world is the will to power – and nothing besides', as Nietzsche stated (WP, 1067). I will go on to explain this in more detail in Part Three. In this chapter I have outlined supporting empirical evidence for the will to power and Nietzsche's metaphysical insight that, 'life's 'will' including ours, is essentially that of a general 'will'. This is, I suggest, incredibly significant grounding for this philosophical position. In the next chapter I will examine the development of unicellular organisms and their behavior, in order to show the continuation of this process of increasing complexity and power.

Chapter 2

Evolution by Natural Selection: The Micro

In this chapter we look at the development from self-replicating molecules to that which we might recognize as an 'organism', in this case the unicellular organism, to determine how its evolution brings about possible foundations for concepts and judgements of 'good' and 'bad'. We shall begin by returning to our examination of 'gene X'.

If gene X represents the most abundant form that evolves from the W-gene, then the mutations which led to this outcome can be considered 'good', and by the same token, mutations in other genes that led to a less successful outcome in terms of their abundance could be termed 'bad', or at least not as 'good' as gene X. For example, a variation that led to a shorter longevity.

2.1. The Synergism Hypothesis.

The theory that I think best describes the core principle in evolutionary processes of natural selection from the earliest life forms to our human social systems is Peter Corning's (1983) 'Synergism Hypothesis' which states:

It is the selective advantages arising from various synergistic effects that constitute the underlying cause of the apparently orthogenetic (or directional) aspect of evolutionary history, that is, the progressive emergence of complex, hierarchically organized systems. (Corning, 1983, p 5).

Synergy is an increase in the system's power compared to the sum of the system's individual parts. In a later publication Corning writes: 'To put it baldly, functional synergy is the ultimate cause of cooperation (and complexity) in living systems, not the other way around' (Corning, 2005, p 73). The conclusions I have drawn in my research into the evolutionary basis of morality are largely in accord with Corning's theory, and as such, my arguments support it, especially with regards to the emphasis I place on the underlying power gains—and subsequent fitness enhancement—in the translation of evolutionary theory to the foundations of 'morality'.

2.2. The Functional Good and Bad.

It is crucial that such an argument explores the notion of function in conjunction with evolution. From the above, it follows that a molecular combination or mutation that improves fidelity is retained in the population of genes or replicating molecules. The function of this particular molecule or variation would subsequently aid in the copying process. The increase in numbers of complex molecules or 'genes' due to the changing functions of molecules, would be regarded as an improvement. In this respect, we would now be in a position to categorise the function as 'good' or 'bad'. Any mutation or combination which causes a particular deterioration in a particular function that otherwise aids fidelity and which subsequently leads to a reduction in the population could be termed 'bad', and, by the same token, a mutation or combination leading to improved functionality and an increase in the population will be termed, 'good'. The terms 'good' and 'bad' are referenced to existence itself. There is an increase in power due to more ABiCADs. Functions of complex molecules such as proteins (which are a polymer of amino acids) include: providing structure, binding and catalytic reactions. (Dow, Lindsay & Morrison, 1996, p. 82).

Consider the following scenario. Imagine that gene X becomes the most abundant gene on the planet, and that one of its variations or its combinations with other molecules develops a modification which 'attacks' gene X, causing it to break down when it comes into contact with it. Let's call the modified gene, gene 'Y'. Gene X has no defence against gene Y, and gradually gene Y becomes more abundant. We could say this modification is 'bad' for gene X, but 'good' for gene Y. Gene Y has gained a modification which increases its power, particularly over gene X. Again, it's important to note that the terms 'good' and 'bad' are used in light of the relation between genes X and Y and in the quality of their existence. The difference in the power relationship is what prompts the judgement of good and bad from their respective perspectives. Gene X's status has decreased relative to gene Y, with a consequential decrease in survival probability. Gene Y's status has increased relative to gene X, with a consequential increase to survival probability. Complex molecules, cells and 'genes' also gain survival advantage and disadvantage by co-operation, interaction and symbiotic combination (Margulis, 1993). Obviously, those with disadvantages will gradually tend towards extinction thus reinforcing the observed direction of evolutionary processes to organisms of increased organisation, power and complexity.

2.3. The Fluid Genome.

It should be pointed out that the genome comprising various genes is not a 'blind' static thing that simply autocatalyses and replicates. It also has to react to its environment—its basic 'constraints' providing 'feedback' for cybernetic control—and also any changes within the autocatalytic system itself, such as potential damage. Much gene expression is not automatic; 'instead, genomes function as true intelligent systems which can be readjusted when conditions require' (Shapiro, 1991, p 4). In other words:

Instead of the 'constant' genome we now have the 'fluid' genome. Rather than a rigidly defined storage system that changes only by occasional copying errors and physico-chemical accidents, we now think of a dynamic storage system subject to constant monitoring, correction and change by dedicated biochemical complexes. (Ibid).

David Thaler similarly writes:

The generation of genetic variation is in large part controlled by the genes and physiology of DNA metabolism. The environment interacts with DNA metabolism through a variety of routes, [a]nd therefore the components exist for feedback between the generators of genetic diversity and the environment that selects among variants. The efficacy of such a feedback loop could be tested and refined through many cycles of selection. (Thaler, 1994, p 225).

As Ulanowicz pointed out, autocatalytic cycles are subject to selective pressures—both positive and negative. As evolution progresses, the autocatalytic 'molecule' or gene would develop 'sensors' to provide feedback of 'information' from the environment and also the functionality of the internal 'self'. Any environment hazardous to the genome can thus be avoided and any development within the genome destroying-functionality can thus be dealt with or 'repaired'. As the genome is 'fluid', it receives continual information or feedback with which to monitor and control the basis of a cybernetic loop. As we shall see, these two monitored aspects of 'self' functionality and environment are important to my argument, for I claim that, in conjunction with natural selection (in line with my findings in Chapter One) they operate to preserve or increase the power of the 'system'.

2.4. Selfish, Ultra-Selfish or Co-operative Genes?

It is important to note that gene conflict can happen within a group of genes previously working together. Thus, if molecules/genes have come together and have successfully replicated, evolutionary theory suggests their pairing could be 'invaded' by 'cheaters'. To illustrate this, let us return to the example I gave of gene X and Y. If these genes were in a co-operating group of complex molecules, and gene Y started to destroy gene X, it will proliferate more than gene X, but its proliferation may have detrimental effects on the survival of the group of co-operating genes. Genes in this situation have been termed 'ultra-selfish' genes, due to Dawkins' (somewhat inappropriate) coinage of the term 'selfish gene' to apply to co-operators. Thus, as Michael Majerus, William Amos, & Gregory Hurst note:

Ultra-selfish is here used to differentiate the reasons for the spread of these types of genes from genes which spread because they increase inclusive fitness (selfish genes). Clearly, kin selection may produce the spread of genes which cause damage to the individual which bears them so long as the action of these genes produces a sufficient increase in the reproductive success of relatives. (Majerus, Amos, & Hurst, 1996, p 177).

Ultra-selfish genes differ from these in that the damage to the individual bearing them is not compensated for by the increased survival of relatives. They spread despite being deleterious to the individual in terms of inclusive fitness. (Ibid). ¹¹

An 'ultra-selfish' gene can be seen as parasitic in the gene cluster, one that drives the group potentially toward extinction. In such a scenario it is in the 'group' interest to suppress the action of the ultra-selfish gene. As Majerus et al continue to note:

we may see the relationship between ultra-selfish genes and the rest of the genome as an example of coevolution in which the ultra-selfish 'parasite' gene is involved in an arms race with the rest of the genome. Just as parasites produce selection on the host for novel resistance genes, ultra-selfish genes have produced selection for unlinked genes which repress them. (Ibid, p 183).

Here they describe one of the functions of what is often termed 'junk DNA'. Nessa Carey develops this idea, noting that,

¹¹ Kin selection and Inclusive fitness will be discussed later in Chapter Eight on the 'Macro'.

The variation that contributes to human pigmentation ... actually lies in the introns, the bits of junk DNA that lie in between the protein-coding parts of a gene ... This gene is very big, and the variant base pair is in the 86th stretch of junk DNA between amino acid-coding regions. But this gene itself plays no role in control of pigment levels. So we have clear precedent for accepting that variations in the junk regions in one gene may be important for effects on other genes. (Carey, 2015, p 214).

It is important to note that ultra-selfish genes are rare because if they are not impeded or repressed they may well drive the genome in which they exist to extinction (See: Majerus, et al, 1996, p 184).

Not all DNA produces proteins, in fact the more complex the organism, the greater the amount of 'junk' DNA there is. It is considered 'junk' precisely because it didn't produce protein, however recent studies have found that this DNA does have important effects on the finished phenotype.¹² A form of natural selection does go on at the DNA or molecular level, as illustrated in the example above. It is the fundamental biological battleground which still affects us with bacterial infections and viruses. As Carey notes, some regions of human DNA are, 'genetic interlopers, derived from the genomes of viruses and other microorganisms that have integrated into human chromosomes, like genetic sleeper agents' (Carey, 2015, p. 5).

Through this process of evolution by natural selection in a situation that is both 'chaotic' yet goal-oriented in its fight for existence, it is relatively straight forward to appreciate the significance of a situation where ever-increasing modifications through genetic mutation or combination are 'forced', leading to functional improvements or damage in all relevant parameters necessary for survival. This situation has led at the 'micro' level to the eventual creation of a 'cell'. As Jocelyn Dow, Gordon Lindsay and Jim Morrison write: 'Cells exhibit a high degree of internal organization with numerous subcellular organelles, each equipped for its own specialized functions' (Dow, et al, 1996, p. 39).

They further note, that 'the different molecules in a typical cell number many hundreds, if not thousands of varieties' (Ibid, p 37). These include sugars, amino acids, nucleotides and fatty acids. (Ibid). Once these genes, cells or complex molecules 'affect' the environment and

¹² See Carey, (2015) for more on Junk DNA.

their own integrity—including other genes, cells or molecules—then we have interaction and competition. The more a cell can influence the world around it for its benefit—meaning meeting its biological/chemical needs to continue existence —then the more 'power' it has. Any variation or 'alliance' that increases its power, and which results in an increased chance of survival, is thereby termed 'good', and by the same token, any variation or alliance that decreases its power, leading to decreased chances of survival would therefore be construed as 'bad'. The scheme I set out here is not controversial in its scientific use of the terms good and bad. After all, both Darwin, at the level of the organism (Darwin, 1998, p. 353), and Dawkins, at the level of the gene, used and appropriated these terms.

Dawkins supports the thesis that selection takes place at the level of the 'selfish' gene, and furthermore, at this level, 'selfishness' is deemed good, which is to say, the 'good' gene is one which survives longest and in greatest abundance.¹³ Again, the terms 'good' and 'selfish' here relate to the notion of continued existence that I examined earlier. It is worth mentioning here, that this 'selfish' gene will be part of an 'alliance' of 'selfish' genes all working together; and, furthermore, each gene is an alliance of 'selfish' molecules all working together. Could we consequently say that these 'selfish' molecules consist of 'selfish' atoms all working together?

Perhaps the 'selfish' moniker is now both out of place and unnecessary. Or perhaps more intriguingly we can view 'co-operation' as a special case or derivative of 'selfishness'. Dawkins himself writes, 'a good gene must be compatible with and complementary to, the other genes with whom it has to share a long succession of bodies' (Dawkins, 2006, p. 84). The good gene is subsequently both 'selfish' *and* 'co-operative'. The important idea that comes through here is that in order for any gene to exist and replicate, co-operation is the most effective means for achieving this 'goal'. Cells that continue to exist, exist because they had the necessary adaptations in functionality that ensured their survival. Using more scientific terminology here, we could say that its 'fitness' has increased. 'Fitness' is a measure, not only of survival potential, but of how many descendants or 'copies' something produces, which is to say, 'individuals that contribute the most offspring to the next generation are the fittest'.¹⁴ From a thermodynamic point of view, we would say increased fitness is an increased consumption of energy through more ABiCADs, leading to greater power in the overall system.

¹³ See Dawkins, (2006), and/or Dawkins (1999).

¹⁴ Oxford Dictionary of Biology, (2015).

2.5. Simple Cells to Complex Cells and Bio-films.

Early simple cells, such as 'prokaryotic', are thought to be the ancestors of all organisms on Earth. Evolving into bacteria, archaea, and then, it is thought, through 'symbiosis', it evolves into a kind of 'merger' between cells or complex molecules to form 'eukaryotic cells'.

(Margulis, 1993) (Douglas, 1996). These cells make up fungi, plants and animals. Dow, et al write that, '[O]ne of the most striking features of the biochemistry of different organisms- animals, plants, bacteria- is the similarity of the molecules they contain' (1996, p 37).

These various 'cells' can therefore be construed as being in an 'arms race'. They are developing new adaptations with various functions that lead to improved fitness. If they obtain variations that degrade functionality in any area, it will lead to a diminution of fitness as they become 'out gunned'. As survival is dependent on cell interaction with the environment including interaction with other cells, it stands to reason that the ability to move around and to build structural bodies will constitute a major survival advantage as this would aid escape from potential 'attack' or movement toward sources of 'food' such as sunlight, oxygen, and other cells.

A good example of one of these 'eukaryotic' unicellular organisms is the 'cilia'. The name 'cilia' is derived from its numerous appendages that 'wave around' helping the cell move; Jack Challoner writes of 'cilia';

They are all predators, feeding on other tiny organisms—prokaryotes and protists. ... They use their everrestless cilia to sweep prey toward a mouth-like indentation called a cytostome. The cytostome absorbs the prey, wrapping it into a membrane-bound vacuole for digestion inside the cell. (Challoner, 2015, p. 110).

The majority of these bacterial cells form 'colonies', mostly appearing today in the form of biofilms (Ibid, p 124) with some forming multicellular constructs. These constructs have evolved to become animals, plants and fungi. This jump from unicellular organisms to multicellular organisms (perhaps via biofilms) is of great interest as it necessarily has individual organisms beginning to co-operate. In fact, co-operation, communication and even altruism have been observed in biofilms, and this is, perhaps, unsurprising given that co-operation and communication seems to happen at the genetic level too. I will examine biological definitions of 'altruism' in Chapter Three as it becomes an important definition for me to help

define our common notions of the 'moral good' and for me to highlight the energy/power transfer aspects of altruism.

It is now known that bacterial biofilms make up 99% of the microbial world, (Li & Tian, 2012, p. 2520) and that they communicate not only with similar bacteria in co-operation but also inter-species in competition (Federle & Bassler, 2003). For example, the bacteria *Myxococcus xanthus* forms, 'large multicellular communities. These feed on other microorganisms, using extracellular antibiotics and degradative enzymes to digest their prey' (Shi & Zusman, 1993, p 414). One of their prey is *E. coli*, which they appear to attract by emitting a chemical 'signal', which lures the *E. coli* toward it (Ibid, pp 414-415).

2.6. Cybernetic Feedback and Altruism in Bacteria.

Co-operation in the above scenario is achieved through what is referred to as a process of 'quorum sensing'. This involves bacteria regulating their behaviour by sending out chemical signals and sensing those signals sent by others. Depending on the density of the chemical signal, certain genetic triggers will or will not be activated to instigate co-operative behaviour, including 'swarming, motility, virulence, biofilm formation, foraging, and 'chemical warfare' (Czaran & Hoekstra, 2009, p 8). We can add to this list of behaviour, acts of altruism and division of labour or functionality. For example, in the above case, bacteria, in response to starvation, will form 'fruiting bodies' containing hardy spores, a behaviour which requires cell-cell communication. However, most of the cells in the body will have to be sacrificed as only a portion of the population will survive. 'It has been found that such quorum sensing-controlled co-operation is widespread in many bacteria ... providing a bacterial population with group-derived benefits of altruism'. (Li & Tian, 2012, p. 2529).

As already mentioned, evolutionary theory predicts that any co-operative, altruistic tendencies in a population can fall vulnerable to 'cheaters' or 'free-riders', which are observed in microbial 'societies'.¹⁵ Communication and control are achieved 'mechanistically' by chemical interactions and responses. Each cell will have a sensing mechanism which will activate the appropriate behaviour depending on conditions.

¹⁵ See Diggle, Griffin, Campbell, West, (2007).

If chemical C is less than n, then behaviour is S (selfish). If chemical C is greater or equal to n, then behaviour is A (altruistic/co-operative). Thus, a simple chemical interaction can gauge the amount of other similar cells in the 'neighbourhood', and can subsequently determine whether a selfish or co-operative behaviour is required. This informational feedback results in cybernetic control, which promotes co-operation and communication between single-celled organisms and sometimes forms 'bodies'. And this process suggests the likely foundations of what would become fully integrated co-operating cell bodies, or multi-cellular organisms.¹⁶ These signals have a regulatory controlling effect on each of the cells, and this regulation in microbial societies reflects what is required in animal societies, including humans. Different species of bacteria also produce different or unique signals, 'and, as a result, only the members of the same species recognize and respond to its own signal molecule' (Li & Tian, 2012, p 2524). Bacteria use chemical communication therefore in an analogous way to the manner in which different languages work to signal and communicate with people of the same race/tribe/state.

2.7. Key Findings from the 'Micro'.

The two key findings from research into this micro level are (1) the extent that 'existent' things, and especially biological organisms are comprised of 'alliances' and (2) the level of co-operation and interaction observed. Firstly, matter itself is an 'alliance' of sub-atomic particles. A 'co-operating' chain can thus be seen as sub-atomic particles- atoms-elements- molecules-complex molecules-genes-cell-cell colony-multicellular organism. It appears nature, in many if not all cases, increases its power in the thermodynamic sense of creating increasingly more powerful and efficient energy-consumers and dissipaters 'where constraints allow'. This is the beginnings of a 'synergy fractal', and this led to ABiCADs competing at various levels.

Successful survival and replication involve molecules/genes having to come together 'synergistically', forming complex 'city-like' organisational structures with different parts having particular functions. This gave rise to the idea of the 'functional good or bad' with the underpinning of the 'prime value' of continued existence itself. Things that could not survive did not survive. Those that could did. Dawkins uses the term 'survival machine' to describe

¹⁶ For more discussion on the 'leap' from biofilms to multi-cellular organisms see Lyons & Kolter, (2015).

them.¹⁷ However, as I wish to argue, this description seems to overlook the crucial energy ‘flow’ that is inherent in life, together with its metabolic requirements. The fight for existence seemingly necessitates co-operation.

The phrase ‘co-operation=existence’ might be too strong an equation to conclude at this stage of our inquiry as many things that have not or could not form alliances of any kind might well exist, perhaps in the form of ‘dark matter’. However, at all detectable levels of existence (except perhaps for studies in particle or quantum physics) there is certainly evidence of co-operative alliance as *the* principal feature of physical existence for the interests of this thesis.

The second key finding from the micro level for my argument is that—even at this primitive level of organism—communication, regulation, co-operation, mutualism and altruism are observed. For individual molecules, genes, and finally cells come together and behave seemingly for the collective fitness of the group, sometimes sacrificing themselves so that others may continue to exist—a similar scenario, perhaps, to a soldier sacrificing his/her life in the defence of their country or state. This situation lends huge support to the argument that co-operation, altruism and its relative ‘morality’, are purely natural phenomena. Also, paradoxically, perhaps, that a ‘selfish’ ‘will to power’ enables the continued existence of the very thing which also drives co-operation with others. My point is that co-operation is a natural, emergent phenomenon or consequence of the ‘will to power’ just as much as it is also ‘selfish’.

The term ‘evil’ may seem out of place at the microlevel, unless, that is, we attribute the term to the ‘cheating’ bacteria and ultra-selfish genes. In this interpretation, ‘evil’ can be seen as an individual element of the group that does not contribute to the power escalation of the collective, but, rather, becoming parasitic to it. It has been shown that ‘good’ and ‘bad’ have useful employment when used in conjunction with power relations and functions underpinned by existence itself—to recall the example I used earlier, it is ‘bad’ for gene X that gene Y can now ‘digest’ it for its ‘good’, relating to continued existence. A similar case can be observed, as I noted, with bacterial ‘warfare’. The gene(s) responsible for one organism which now overpowers another—such as with biofilms co-operating to digest other species of bacteria—can now vary in the ‘good’ or ‘bad’ dimension. It can improve, for

¹⁷ See Dawkins, (2006), Chapter 4.

instance, digestion capabilities or retard digestion capabilities, or improve or degrade motility. Note that this dimension is purely in reference to power. Improvement here means to increase potential for causation (power), a degradation being a loss in causal ability.

Our potential candidates for 'evil' — 'cheating' bacteria—are designated 'cheaters' because they reap the benefits offered by the group without expending the energy that contributes to and sustains the group. For example, it 'cheats' when it does not secrete an enzyme necessary to break down food when part of a group, but it may continue to digest food which the group has been able to break down 'en masse'. This situation will give the 'cheater' an advantage in energy, perhaps diverting the excess energy to cell reproduction instead, thereby introducing more 'cheaters' into the environment. These 'evil cheaters' essentially reduce the power of the group by increasing their own power through 'selfish' behaviour. This may happen because the chemical 'trigger' to release the enzyme is faulty or absent. We can see here at an early stage of life the analogous power struggles Nietzsche famously wrote about between the masters and slaves, that I explore in Part Three.

Going back to the notions of 'good' and 'bad' then, in terms of existence (the prime value), we are in a position to see that all variations that improve fitness are deemed 'good', while all variations that hinder fitness are 'bad'. (Fitness here, as I have explained above, is regarded as a measure of one's capacity to continued existence and reproduction.) In terms of function, a functional variation which improves the chances of continued existence is 'good', but 'bad' if the variation decreases functionality, leading to fewer opportunities of continued existence. In terms of power relations, a variation that decreases status leading to a decreased fitness is 'bad', but 'good' if there is an increase in status leading to an increase in fitness.

There are, of course, further combinations available that would require further examination given that many functional elements interact. It is possible that a decrease in function or status of one part might bring about increased fitness for the whole, and likewise, an increase in status or function of one part might bring about a decrease in fitness for the whole including itself. As the fitness of the whole also affects the individual part, the terms good and bad due would have to refer to the whole. This is exemplified in a case, where, for example, gene A in cell Y has the function of removing excess quantities of a particular element—say nitrogen (N)—but cell Y requires a certain amount of N to survive. Improvements to the efficiency of gene A may give rise to the removal of excesses of N to

enable cell Y to survive. In such a scenario, although functionality and status of gene A has improved relative to N, it is still 'bad' relative to existence, since gene A is contained within cell Y. It should also be pointed out that function here is a power relation. Gene A's increased functional efficiency affects both N and cell Y. It therefore has a causal influence (power) over them both. Likewise, cell Y has a power over gene A. Thus, if cell Y ceases to function (death), gene A dies along with it.

In the next chapter I examine the next level of the 'synergy fractal', that being the multicellular organism to show that it is a continuation of the same 'will to power' process of co-operation and increased power through functional synergies.

Chapter 3

Evolution by Natural Selection: The Meso

In this section we will look at the level of the multicellular organism, starting with a brief description of the transition from the cell to said organism in evolutionary terms before turning to ever increasing interactions between organisms. This is in order to show the natural continuation of the power processes so far discussed.

To set the scene for this exploration, let us briefly imagine replicating unicellular organisms which are emerging from within the 'primeval soup', each of which are gradually populating the oceans, and all adapting and changing to their environments over successive generations, as well as competing and co-operating with each other for certain nutrients and minerals, and occasionally digesting each other. Similar to the 'cilia' organism that I discussed in the previous chapter, each will develop defensive and offensive structures. These single celled organisms become prolific, spreading to all the corners of the oceans as well as into rivers and onto land. The world may have been like this for a billion years with nothing other than unicellular organisms, until eventually a combination or mutation occurred within them, which, saw the cell remaining attached to its 'parent' cell (perhaps joined by a sticky outer membrane), rather than the cell dividing and 'moving on', this perpetual replication would form a cell colony, such as today's biofilms discussed in the previous chapter.

Cell colonies are not multicellular organisms. If one cell were removed from the colony it would continue to divide and act as a unicellular organism and thereby create a new colony. Some survival advantages were conferred by existing in groups, perhaps through improved defence protecting a central core of cells. This adaptation increased fitness—therefore a 'grouping' adaptation could be described as 'good'. The Earth may have endured another billion years with only unicellular organisms and colonies spreading, co-operating, interacting, competing, and continually evolving across her face and in her depths, until, that is, a true multicellular organism inevitably emerged, perhaps via the biofilm route. In this scenario, we would find ever-increasing synergistic co-operation and communication amongst cells until the cells form a functional co-operative relationship between them, or a new level of autocatalysis, or what is sometimes called a 'phase transition' (the main difference between the two is that cells have a specific function in collaboration with the

other cells around it, so if separated, it would not form a new organism or continue to replicate, it would die. It has become 'interdependent').

3.1. The Evolutionary Feedback Loop.

It should be noted that, as these organisms evolve in conjunction with environmental feedback, they also change the environment, creating a continual causal loop. It is of course possible that a particular organism may evolve that changes the environment in a way that is detrimental to that organism and essentially be responsible for its own destruction unless it can adapt to avoid it. Steve Parker writes, 'micro-organisms functioned like, or were, cyanobacteria, using sunlight energy trapped by photosynthesis as fuel, and emitting wastes including gas hydrogen sulphide' (Parker, 2015, p 38).

The gathering of fuel and 'changing' of the environment are effects of the increasing 'power' of the organism. The jump that unicellular organisms take, of initially forming 'mats' or 'films' to them 'co-operating' to form multicellular organisms is highly significant as it led to the development of animals, plants and fungi—living beings which are nothing more than networks of cells with specific functions working together as a team. The forming of the multicellular organism demonstrates the 'drive' or growth toward more powerful systems, perhaps feeding on the 'free energy' of unicellular organisms amongst other things.

3.2. Evolutionary 'Pacemakers'.

In Corning's hypothesis this important new 'co-operating' behaviour that takes place due to its synergistic effects, acts as a kind of framework that helps to structure the 'genome' to enable the genome to modify its behaviour by genome mutations and also through environmental feedback. The learnt behaviour achieved from environmental feedback modifies the genome—not in the short term (Lamarckian sense), but through 'cultural' transmission or learning through mimicry. An example of this is the blue tit bird, who upon discovering that the cream in a bottle of milk can be accessed by tapping through the foil bottle top, could, over time, evolve this behaviour in the blue tit population as a common trait, one that benefits the overall fitness of the blue tit population. Corning cites Ernst Mayr (1960) when commenting that, 'behavioural innovations are often the 'pacemakers' of evolutionary change' (Corning, 2005, p 73). This notion would certainly follow from my

conclusions in the previous chapter, that the 'fluid genome', feedback and cybernetic control maintains the status of the 'ABiCAD'.

The genome gradually becomes modified in line with the behavioural feedback over time through mutation and other interactions, so that co-operation becomes an evolved trait, constructed by its synergistic effects. DNA is the 'recipe' or information to build protein structures that RNA 'manufactures' and—to simplify our understanding—let us assume that only proteins are manufactured creating our phenotype or organism. The success of that organism in the world is therefore dependent on the 'recipe' (genome) and the manufacturing process which produces the ABiCAD (phenotype). It should be obvious that evolution therefore takes place within the DNA sequence, (as this is all that is passed on to the next generation and is the 'recipe' that becomes manufactured), and that any changes at this level will affect what is manufactured and this in turn will affect how the organism survives within its environment.

The basic development process at the multicellular level is very similar to the process I expounded in the previous chapter—of the process that enables the development of a complex cell at the micro level. That is to say, mutations or changes in the DNA which create a phenotype with increased power in its environment, will more likely survive if it gains the resources it needs, while not necessarily improving its fitness compared to the organisms it feeds on. Let us return once again to my useful illustration of organisms X and Y. Again, let us assume that Y only feeds on X. Y is more powerful than X, but if it is fitter, it will quickly die out due to exhausting its food supply. Balances will have to be struck, and this balance is fundamental to food chains and trophic levels, with the most powerful organism at the top not necessarily the fittest. These levels will form a 'pyramid' shape. Changes in DNA that decrease its power are likely to tend to extinction, unable to compete against more powerful entities or function within the environment in general. This is an interactive process with the environment, so what is functionally synergistic in one environment will be different to another, thus showing the principal method with which different species develop. So, gradually organisms will be constructed that can survive in a competitive environment with increasingly more powerful competitors, with improvements (meaning changes which increase functional synergism and in turn fitness on its trophic level) to locomotion, such as movable tails, fins, legs, etc. Better (again meaning an increase in power leading to increase in fitness) defences such as shells, spines, etc and more efficient ways of finding and

consuming its food such as senses, mouths, guts, etc. As well as developments in reproduction and copying of DNA.

3.3. Power as Evolutionary ‘Driver’.

What is exposed here that is not generally highlighted in evolutionary theory is *power* being the evolutionary ‘driver’ to greater complexity, with natural selection then ‘deciding’ which organisms continue. Power is of course something that requires an increase in ‘throughput’ of energy. Citing Marshall Sahlins and Elman Service, Corning writes in a footnote:

What they call “general evolution” involves directional changes in *both* structural complexity (“higher organization”) based on the number of parts, the degree of specialization, and concomitant integration *and* the amount of “energy capture” by the system: “The difference between higher or lower life forms, it seems to us, is not how effectively energy is harnessed, but how much.”¹⁸ Again, evolution is equated with a specific form of progress. In a later work, Service asserts that evolution is “sequential, directional advance in terms of some measurable criteria of progress.”¹⁹ That criterion, he says, is energetic: “Life as a whole moves in the general direction of improved energy-capture.”²⁰ (Corning, 1983, p 162)

Thus, we see here, once again, that the second law of thermodynamics and the creation of ‘ABiCADs’ (organisms) is linked to evolution in general. Furthermore, evolution is presented as part of a more fundamental energy degradation and dissipation process, one that creates the most powerful organisms it can, given the environmental constraints.

It is thought that before about a billion years ago only unicellular organisms, micro-mats or biofilms existed, yet by approximately five hundred million years ago there was a diverse array of plants, animals and fungi within earth’s oceans. The previous fifty million years is known as the ‘Cambrian explosion’. One such creature from this period, ‘*Hallucigenia sparsa*’ was about 3cm long with a bulbous head and tail part drooping down (making it difficult to know which part is which) with seven or possibly eight pairs of legs and seven pairs of spines along a tube-like body. It is thought to have scavenged along the seabed eating the remains of dead animals (Parker, 2015, pp 52-53). My point here is to highlight

¹⁸ M. D. Sahlins, “Evolution: Specific and General,” in *Evolution and Culture*, ed. M. D. Sahlins and E. R. Service (Ann Arbor: University of Michigan Press, 1960), pp 20-21.

¹⁹ E. R. Service, *Cultural Evolutionism: Theory in Practice* (New York: Holt, 1971), p 3.

²⁰ *Ibid*, p 97.

key similarities with the 'cilia', an organism which had an early 'mouth', digestion and protuberances around it which were, potentially, a means for its locomotion and also a 'food finder'. 'Hallucigenia' as a multicellular animal still has protuberances which were divided into spines, presumably for defence, and legs for locomotion, as well as a mouth and a digestion system within the body. We can once again see in this animal the development of power over its environment and other organisms. It has spines to fend off predators, legs to increase range in order to find food and avoid predation, and a mouth to devour or ingest into the 'guts' which remove energy and nutrients as required.

Each cell of this creature has a specific function, in the same way each complex molecule had a function for the cell. Different proteins would be manufactured to produce cells for the skin as opposed to the guts or the spines. Therefore 'an organism is a collection of functions' (Dow et al, 1996, p 76). And as previously stated, a function is essentially a power relation. An organism must also therefore be a collection of power relations, and more importantly, an agent of power or causation itself. Our understanding and terms for the use of 'good' and 'bad' at the 'meso' level are therefore identical to those at the 'micro' level.

Adaptations that increase an organism's power leading to improved fitness would be construed as 'good', and an adaptation that leads to a decrease in an organism's power, leading to diminished fitness, would be seen as 'bad'. As an example, we might think of the development of harder defensive spines as opposed to softer ones. The harder ones would be seen as good as they would deter predators therefore maintaining some power over them. The softer spines would therefore be seen as bad as they would have little or no power over a potential predator. It is important to note, however, that there is a complicating factor in this scenario regarding the definition of fitness that I expounded in the previous chapter. Since replication is important, any improvement in defence, such as harder spines, ought not have detrimental effects on the efficacy of reproduction. Therefore, we also need to consider the possibility that an increase in power which leads to reduced fitness as a bad situation, and a reduction in power which leads to increased fitness as good. I will examine this scenario in more detail shortly. The evolution of a phenotype can be regarded, as a continual compromise between many factors.

It is important that each cell of a particular type multiplies to the correct amount and shape, producing the required function within an organism. If a particular cell continues to multiply beyond its required amount, it may become functionally useless or, worse, may start to

impinge on other cells, taking more resources and/or space, which would impinge on the other functionalities within the organism. This 'greedy' cell group would most likely decrease functionality and power of the organism leading to its demise. This 'runaway' cell-growth which impinges on other, 'normal' cells in biology, is known as cancer. Likewise, if a cell doesn't multiply enough to the correct amount, it may also be functionally useless or diminished, as in the case of only growing to half a spine and therefore being malformed.

Each phenotype therefore has a 'golden mean' or 'form' where both excess and defect reduce functional synergism, (power) and most likely fitness, and are therefore bad. The 'form' of the successful phenotype is thus continually 'sculpted' by the environment via natural selection. More generally and abstractly, the 'form' is an energy 'pattern' or 'system' which is able to exist within a larger dynamic energy system—in this case the earth environment.

3.4. Function as Power Relation.

Now might be an appropriate time to underscore the power/function conflation as it is a crucial part of my argument going forward. It has been asserted that a function is a type of power relation—let us now convince ourselves of this truth. A bicycle like any organism is a 'body' of functions. The saddle's function is to support the weight of the rider. It therefore must have a 'power' over the rider in being able to be strong enough to resist that weight. A saddle made of one or two sheets of paper would be a very bad saddle. Bad, because it would just crumple down and 'impale' the rider on the saddle stem. It would offer no resistance and therefore have no 'power' over the rider. 'Bad' here is being used in reference to its ability to fulfil the design function, which requires power over the rider. Likewise, a bicycle brake has the function of slowing down the bike. As such, the braking system has to have power over something (usually the wheels via brake blocks) that will lead to this outcome. However, it could be construed as power over the air, due to increase in air resistance to the motion of the bike perhaps caused by the release of a parachute attached to the bike or rider—this would of course only be functionally useful at very high speeds, so is not adopted by bicycle manufacturers.

It is plausible that all, or at least many, possibilities of every necessary function has been tried in different ways by organisms, sporting varieties of mechanisms with natural selection determining which are functionally 'good' (with good here ultimately referring to fitness). So,

from the development of the micro-organism onward to the multicellular organism, we see an increase in power and a perpetual 'arms race' of functional adaptations for eating (such as bigger and stronger mouths, including teeth and powerful jaws to break through defences such as hard shells or exoskeletons), as well as improvements to digestion and nutrient removal and excretion. Improvements to locomotion such as fins or tails, and as organisms moved from the sea to land, to legs, possibly with adaptations such as claws for offensive and defensive behaviours and for tree climbing. Organisms have also evolved adaptations to enable them to 'influence at a distance', such as bird song and other aural calls including language in humans, scent markings for territorial claims, and so on. Dawkins (1999), explores this in *The Extended Phenotype*.

Any adaptation that improves an organism's influence over other organisms is, by definition, an increase of the organism's power. This may well be seen as 'good' from the perspective of the organism as it may well increase its fitness, but as we learnt from our examination of the 'micro' level, an increase in power/status at a 'local' level is not the same thing as an increase in fitness, because fitness is essentially about how many offspring one generates; it is an objective measure. It is only when we examine the scenario objectively that we can regard fitness as an increase in power, as it entails the production of more ABiCADs, and thus the production of more energy gradient reducers in the earth system. Any species therefore that cannot accommodate the future into its perceptions (such as with a creative rational mind) can only relate good and bad to a base assessment of 'local' power relations and status (usually performed through feeling and emotion to be discussed shortly). This point is very significant in my understanding of 'moral' development, as I will come to argue.

For now, I wish to pursue my understanding of the development of good/bad/evil judgements from the perspective of the organism making them. Thus, from hereon all value laden terms such as better, worse and improvement, are related to status unless otherwise stated. This is a crucial point, because, just as power relations are not given their full importance in evolutionary theory, the fact that an organism's interactions with the environment is also a matter of causal (power) relations, means that their developing psychology will be based on these causal interactions and assessments; that is, also grounded in power evaluations. In my summation, this crucial factor is not emphasised enough in our understanding of psychology.

We should now feel more confident that a function is a power relation and the functional good/bad is a judgement of that power relation. To give another example: a good can opener gives the user power over the can and opens it efficiently, while a bad can opener gives little or no power over the can it needs to open. Our good/bad assessments are power relations. They are reducible to power. Because an organism is a collection of functions, an organism is therefore an expression of power—with survival and reproduction as its overall function or purpose derived from the ‘prime-value’, derived from the creation of ABiCADs and their ‘natural values’, which are things that maintain its overall metabolism and replication, derived from MEPP. Therefore, it can be logically seen that the creation of more powerful organisms, such as bigger and stronger animals, would be one obvious direction of evolutionary development, leading to huge beasts with tough skins or armour plates for defence, sharper and longer claws and teeth for predation and defence, which perhaps met its zenith with the dinosaurs.

From the above paragraph, it might seem that obvious questions arise such as, why are we not dinosaur like? Why did the dinosaurs die out? As mentioned in Chapter One, the progression toward more powerful ABiCADs is not a linear progression; it is in conjunction with a seemingly chaotic interaction with the environment. Thus, a comet impacting earth modifies environmental constraints, such as reducing sunlight, which in turn will kill off much of the larger plant-life which in turn kills off those animals dependent on them, and so on. Such a large deterioration in energy flow cannot support larger more powerful ABiCADs, and they will tend to extinction in favour of those that have lesser energy requirements.

3.5. The Eco-System as a Giant ‘Entropy Fan’.

The above also throws light on the interconnectedness of the system, that evolution by natural selection as a great energy reduction system, will create levels from the unicellular life-forms at the bottom, all replicating to form the most powerful bottom layer, which then feeds the subsequent ‘higher’ level, etc. At each level, competition will ‘decide’ who is the most powerful ABiCAD in conjunction with the environment. This thereby creates the aforementioned ‘pyramid shape’ of trophic levels, usually measured by biomass. And this is what we indeed find.²¹

²¹ See Oxford Dictionary of Biology: ‘Pyramid of Biomass’, ‘Pyramid of Energy’, ‘Pyramid of numbers’, (2015).

Here we also see natural constraints in biological evolution to the maximum power principle. Nature 'strives' for greater power and energy throughput where it can. In fact, the whole ecosystem could be viewed as a giant 'pyramidal' entropy generating machine, a kind of giant 'entropy fan' turning 'hot' free energy into 'cool' entropy. A kind of autocatalytic loop is formed where unicellular organisms and other non-biotic parts of the environment, such as sunlight, support multicellular organisms such as plants, and fungi, which in turn support animals, which then create waste which supports unicellular organisms, etc. The cycle continues, and as we saw earlier with my allusion to Ulanowicz's argument, this is asymmetric toward growth.

3.6. Cancer as 'Cheating' Cells.

The jump to a multicellular organism had to bring many cells into a co-operative arrangement, all with their own specific function, and the multicellular organism has its 'cheaters' just like the genome mentioned earlier. Earlier I mentioned, too, that these cheating cells within the multicellular body are known as cancers. Cheating cells do very well in a co-operating body as they do not expend energy for the group-benefit but reap rewards derived by the group, thus providing resources for its own reproduction. The point here is to realise that evolution occurs on different levels—the co-operating cells are getting the benefit of group co-operation in a more powerful system which ultimately increases fitness. The cancer cells are still operating at the individual level by merely reproducing themselves, essentially at the unicellular level. Therefore, the organism has to evolve systems to monitor and restrain any 'cheating' cells that should arise. If unchecked, '[c]ancer cells transform a multicellular body from a hardworking collective to a wasteland of exploitation, extortion, and conflict' (Aktipis, 2020, p 26). Just like the 'ultra-selfish' genes, these cancerous 'cheating' cells can do very well within their environment at the individual level whilst not seeing the 'big picture', which is to say, that they are part of a team that if it were to fail would also destroy them—which of course is an inevitable end point which their 'selfishness' assures. We can see 'cheating' only looks 'good' from a certain 'myopic' perspective, and this translates to all levels of co-operation, as I shall argue later.

Aktipis writes:

From a cancer cell's point of view, our bodies are raw materials to be consumed and used to make more copies of itself; from a cancer cell's point of view, our immune cells are predators

to avoid, and our tissues and organs are new territories to be colonized. From a cancer cell's point of view, we are expendable. (Ibid, p 21).

This sounds like the relationships between our criminals, the public and police, there is more to this than mere analogy. Aktipis continues to note, 'cancer cells evolve to exploit their hosts, which can ultimately lead to their own demise' (Ibid).

Thus far I have been examining the evolutionary 'push' to more and more powerful individual creatures. However, this could be evolutionarily thwarted if rather than acting as individuals, these creatures started acting together as a group (co-operating). This would be an identical 'move' to the manner in which molecules became 'genes' and cells, and how cells became 'biofilms' and eventually multicellular organisms. An important point to note here is that these evolutionary leaps are all leaps in co-operation; they are leaps in power, which begin the new level of the 'synergy fractal', a 'phase transition'. The leap to 'social' organisms will be dealt with in Chapter Six. For now, let us turn to two other important areas of evolution, the central nervous system (CNS), including mind/brain and sexual selection to show the next level of cybernetic feedback and control and the ubiquity and necessity of status assessments in ABiCADs.

Chapter 4

Brain/Mind Evolution and ‘Conscious’ Representation

In this chapter I will explore the development of the CNS and argue that our psychology is essentially founded on power/status evaluations and homeostatic requirements which themselves are also status evaluations.

Continually evolving as part of the organism is its CNS. In fact, the beginnings of this evolution—like the organism itself—belong in the ‘micro’ world of unicellular organisms. It is known for example that:

bacteria as uni-cellular organisms have no nervous system but they, of course, possess mechanisms for stimulus recognition and information processing, which already function according to the principles of more complex organisms. They even have a sort of memory (Roth, 2013, p 69).

This should not be surprising, given I have already explained how ‘cilia’ can be regarded as a predator. At some point in evolutionary history, autocatalytic systems, such as cells, had to solve a simple problem. What constitutes ‘me’ and what is external to ‘me’? This question is relevant even at the level of ascertaining whether I, as a creature, can be certain I can digest the thing I wish to eat, and that I am not actually a part of it. Also, I need to ‘know’ when something else might be eating me—of course, occasions when I need to self-sustain. This ‘sensing’ is carried out by chemoreceptors. As Roth explains, these ‘serve to recognise food and other substances such as amino acids, but also toxic substances like heavy metals, and they possess mechanoreceptors by which the bacterium can detect obstacles’ (Ibid, p 70). Both unicellular and multicellular organisms need to maintain certain parameters within them, so that the molecules which constitute it are able to perform their individual chemical functions. This is known as homeostasis.

As organisms became more complex so too did the CNS. Co-ordinating ‘internal’ functions such as digestion, circulation of oxygen, etc with environmental movement. This led to the development of senses such as touch, vision, olfaction, etc. (Roth, 2013). These adaptations are driven by natural selection in the normal way with gradual improvements to sensory and control systems, evolving what we now know as the brain, contributing to greater power and fitness. It makes evolutionary sense to have the organ responsible for sensing the external

world (X) the same or very close to the one that senses the internal states (IS) and controls the body, because when something is sensed, no time is wasted in signalling and activating the appropriate response. The mind/brain is thus the processor of informational feedback both from the environment and the organism itself. It is the cybernetic control mechanism for the organism.

It is important to note here how early sensory systems detect and ‘evaluate’ causation, which is to say, while a mechanoreceptor reacts due to a physical cause, a chemoreceptor similarly reacts due to chemical or physical interactions. Initially these mechanisms would have been purely reactive with no form of internal representation—perhaps like ‘quorum sensing’—just a sensor, trigger and switch analogous to a mechanical thermostat. At some stage in evolutionary history, this unconscious ‘mechanical’ system ‘evolved’, perhaps due to the need to prioritise among ‘competing’ informational inputs and organism requirements to a representational, ‘conscious’ processing system alongside or ‘upon’ the unconscious system.

The precise nature of representative ‘qualia’ or consciousness is still a scientific and philosophical mystery, but it would seem to follow logically from the above that an organism’s ‘feelings’ from the ancient past, would have comprised certain ‘evaluations’ of the affects upon it or the effects of its own internal functional degradation, so that, for instance, its requirement for water would first be ‘noticed’ or detected by internal sensors whose role is to monitor functionality or levels of chemicals required for its functionality. All ‘feelings’ leading to emotions would also be based on physical causation or ‘evaluations’ of causal ability (power). Whilst these will have a fitness benefit, the physical body cannot have a sensor or evaluator for fitness itself.

4.1. The Conscious and Unconscious Mind.

We now need to tackle the rather thorny problems of mind, consciousness and unconscious. The model expounded below has been inspired largely by the writings and findings of Antonio Damasio, Mark Solms and Oliver Turnbull; the model combines their ideas and findings as simply as possible to present a coherent understanding of the evolution of the mind. As previously mentioned, an organism needs to establish what belongs to it and what does not, and to maintain homeostasis. This is at the core of ‘consciousness’.

For any organism to survive it must maintain itself within certain parameters, and it must absorb energy to maintain cellular function, to avoid predators and unsuitable environments, etc. As certain commodities increase or decrease, the organism needs to be able to react to maintain its particular homeostasis. This is the underlying function of its need for internal representations. Being able to detect food, predators, dangerous environments, and mates are the function of the sensory system and external representations. Maintaining homeostasis in an environment necessitates the evolution of mechanisms that perform such functions. This requires at least two representational 'stages', one for external presentation and one for internal presentation. Damasio uses the term 'mappings' for this.²²

The cells that constitute the CNS are neurons and glial cells. Whilst glial cells are important to the functioning of neurons, these neurons are the 'engines' that make up the CNS. There is ample evidence from neuroscience that when the brain is damaged the mind is diminished in some way.²³ Of neurons, Damasio tells us, '[n]eurons as far as one can fathom, are unique cells, of a kind unlike any other in the body' (Damasio, 2012, p 37). He asserts that they have both a functional difference and a strategic difference. The functional difference is one of producing electrochemical signals which can change the state of other cells. This functional difference is in turn responsible for the strategic difference that, '*neurons exist for the benefit of all the other cells in the body*' (Ibid, pp 37-38). He concludes that neurons assist the organism in the management of life.

Consciousness for Damasio seems to involve the fusion of what he calls 'images', known to philosophers as 'qualia',²⁴ and 'mappings' as a representation of the body and external world (X). The CNS produces both mappings and qualia in the form of neural patterns. Damasio also sees qualia, such as an external object or internal pain, as a kind of mapping, which then fits into a larger mapping of, for instance, a part of space or part of the body, and then that, in turn, constitutes our familiar mapping of the external world and our body. These are all neural patterns created by the brain (Ibid, pp 64-65).

Let us briefly examine this idea in more detail. The brain may start from a basic assumption of nothing other than an awareness of space and the representation of this 'nothing' or space. That space will include the body mapping. The qualia created here will need to be of

²² See Damasio, (2012), chapter 3.

²³ I wish to make no claims here as to the metaphysics of mind, other than it correlates to brain.

²⁴ I, too, shall use qualia throughout my analysis.

a special kind—one that generates some kind of action, as it will be ‘about’ the condition of the organism itself. These comprise the ‘primordial feelings’, pain, hunger, thirst, sex drive, pleasure, etc of the organism. Further CNS development will lead to the basic emotions, such as fear, anger, etc. The qualia concerned with X will be of a different kind, as they are outside or external to the ‘body mapping’. However, this information will still be generated by the interaction of the body with X, such as light waves striking the retina, chemicals absorbed by the nasal glands, or air pressure waves moving tiny hairs in the ears. That is to say, they are all physical, things that have a causal influence or power over the body—they are the body’s ‘information’. Support for Damasio’s ‘body mapping’ idea comes from the ‘phantom limb’ phenomenon where people with amputated limbs can still have experiences of pain in the missing limb. The brain’s body map is still in place and if neurons in the area corresponding to the missing limb can be activated some other way then feelings would still be possible from the phantom limb.²⁵

The brain therefore constructs representations of X and IS continually; qualia are continually generated by the CNS mapping and monitoring both X and IS, (when we are awake at least). It is important to realise that there is nothing ‘looking out’ of the organism; qualia and representational ‘maps’ are constructed within the CNS, from and only from interactions with the body and within the body. Its results are what we refer to as the ‘conscious mind’. These qualia are thus representations of physical causation. It is also important to note that many of these homeostatic functions are carried out by the brain unconsciously—such as heart and breathing regulation for oxygen requirements—in fact most of what happens in the brain and constitutes ‘mind’ is carried out unconsciously (Solms & Turnbull, 2002, pp 79-80).

Memories are stored unconsciously, and we can call them partially to consciousness, or they can be triggered by association, such as when we sense a particular smell. Things we have learned also end up in our memories and contribute to behaviour such as driving a car.

As we learn, the brain is literally ‘re-wiring’ itself by making new synaptic connections. (Ibid, pp 145-146).²⁶ Natural selection can also accomplish this ‘re-wiring’ but over a much longer time span—as I shall explain later, with regard to feelings and emotions—but any ‘re-wiring’ that happens by mutation and which increases fitness will get passed down to future generations. These two mechanisms, of ‘shaping’ mind, learning from the environment and

²⁵ For more on the Phantom Limb phenomenon see Ramachandran & Blakeslee, (1999).

²⁶ Also see Doidge (2007).

natural selection are important when considering how we make ‘moral’ judgements and especially for explaining the ‘dumbfounding’ effect (Haidt, 2001), when asked, for instance, why is a certain thing ‘evil’. We will return to this question shortly.

The mind is therefore constructed by the CNS with the function of representing both X and IS, with the purpose of maintaining homeostasis and generating behaviour that is beneficial for both survival and reproduction of the organism. For example, if the cells within an organism are running short of water, a ‘quale’ is generated by the CNS—which we know as thirst—which then triggers ‘seeking’ behaviour, leading us to seek satisfaction of this need using our representations of X as a guide to find it.

There is nothing qualitatively different about the human CNS compared to other animals, especially vertebrates. All animals use essentially the same type of cells in the CNS. But clearly there are quantitative differences in functional ability. For example, a dog has more sensitive olfaction than a human, but the human has greater problem-solving abilities and general intelligence. Roth tells us that:

In summary, even after intense search, we find no ‘truly unique’ characters in humans compared to other animals—at least in the cognitive domain. There is nothing in the evolution of humans that does not have pre-stages or could have served as ‘exaptation’ for further evolution. (Roth, 2013, p 264).

As there is nothing qualitatively different about the CNS in most species and these have all been ‘constructed’ over billions of years, it is a reasonable inductive assumption to claim that the qualia produced by the CNS are also subject to natural selection. For example, it would not bode well for an organism approaching a dangerous environment, such as an area which is too hot for it to survive, if that organism represented the internal temperature rise within, and an increase in energy upon its body to damaging amounts as a pleasurable feeling. Likewise, an organism that had its qualia ‘inside out’ so to speak, such as representing light waves as pain or nausea and representing thirst as ‘blue’ or some kind of tone, would have a priority to avoid light and no compulsion to seek water.

Evolution by natural selection would suggest that there were millions of different variations for qualia tested by various animals over hundreds of millions of years; the ones that felt pleasurable qualia as they neared destruction would of course have been more unlikely to

survive and reproduce their genes than the ones that felt displeasure or pain. Likewise, the things that were conducive to survival (status maintenance and improvement) and reproduction would tend to illicit pleasurable qualia—orgasm being a prime example. In short, our feelings, including emotions are evolutionarily ‘designed’ to provide a kind of ‘value’ assessment, and this assessment is of biological value which will relate directly or indirectly to fitness (Damasio, 2012, p 48). It directly relates to the status of the organism, which as previously mentioned will over time be shaped by natural selection in accordance with its evolution towards fitness. Feelings also provide a drive to motivate behaviour to maintain homeostasis and reproduce, such as with thirst, hunger and lust.

The feel/emotion part of the human brain is located at the top of the brain stem in one of the most evolutionary ancient areas. Solms & Turnbull cite the ‘periaqueductal gray’ as being one of the most important parts involved in the production of ‘feel’. Part of it generates the pleasant feelings and another part the unpleasant feelings. It also has a role in the generation of pain (Solms & Turnbull, 2002, pp 107-108).

An organism’s judgement of good and bad would therefore be rooted in feeling and emotion; fear for example would trigger a series of dispositional behaviours that might lead to fleeing, ‘freezing’ or hiding. With development of memory, situations that invoked fear can be avoided, since fear is an unpleasant feeling. However, pleasure and pain/displeasure are not the same thing as good and bad, in fact they are both good in the sense that they both promulgate behaviour conducive to maintain or improve status. It would be very bad for an organism if it were unable to feel pain, as demonstrated by humans who have this condition, who usually end up frequently injuring themselves, sometimes severely, making their life expectancy much lower than those who do not have this condition.²⁷

It is important for our purposes to recognise this distinction as some philosophies in ethics have mistakenly used pleasure, pain or other emotions such as happiness as a basis for ethical theories, such as utilitarianism. Pleasure/displeasure, pain and all other emotions serve a purpose, and that purpose is continued existence of the organism and specifically its genome by maintaining or improving its status. Therefore, as I mentioned, an organism that felt pleasure as it approached a fire instead of unpleasantness such as a burning pain would continue to approach the fire. This cannot be ‘good’ in any aforementioned use of the word,

²⁷ See Nagasako, Oaklander, & Dworkin, (2003).

although it would be pleasurable right up to the point it died. We might say that pleasure and pain are simply evolved encouragements (punishment and reward) for the organism to do the 'right' thing, which is to say, 'right' behaviour consistent with the continuation of its genes, achieved by power/status assessments.

If the organism is too hot, its homeostatic regulation system will create an unpleasant feeling and a physiological response such as sweating; if too cold it will also generate an unpleasant feeling to prompt you to take appropriate action as well as set off an automatic physiological response such as shivering. It tries to maintain its effective balance for all biologically necessary parameters. The 'good' for the organism's survival is therefore in the between or neutral state. It would seem from this that homeostatic contentment is at least one of the organism's 'goal' states with pleasure/displeasure and pain acting as 'carrot and stick' to encourage the behaviour that achieves it.

We are now in a position to explain the 'dumbfounding effect' I mentioned earlier. The reason we cannot explain why something is good or evil is because such judgements have become largely innate and they activate the appropriate parts of the periaqueductal grey giving us a 'feeling' in response to something we perceive, such as, for instance, a situation of injustice. It is worth remembering that these are modifiable by environmental learning as well as natural selection.

At the level of the organism, the CNS including its 'representations' has the function of preserving the status of the whole organism, essentially cybernetic command and control, which is responsible for damage control, maintaining homeostasis, and staying out of danger amongst other things. Both pleasure and pain have the function of improving or maintaining the status of the organism and status is a measure of an organism's power with its potential for causation. A cheetah with a thorn in its paw, for instance, is reminded through their pain that their status (ability to hunt) is not all it should be. The evolution of mind/brain is subsequently very much in accord with the findings I examined in previous chapters regarding good and bad, the only difference is that, now, in the material I have been examining in this chapter, the organism has its own 'in built' value system. Damasio tells us: 'the physiological state of a living organism's tissues, within an optimal homeostatic range, is the deepest origin of biological value and valuations' (Damasio, 2012, p 48). The organism follows the simple evolutionarily derived biological coercive law, if pleasurable repeat, if

unpleasant or painful it should be avoided. It thus is a rough guide to what is good or bad for the organism in terms of its status.

The early organism in all probability started with automatic processes and no consciousness, just internal homeostatic regulation which led eventually to forming the 'maps' of the body of the organism and perhaps early forms of 'feelings'. Further adaptations brought in external representations, probably chemical and tactile at first, such as touch, olfaction, and taste, then leading on to interactions that led to vision, and auditory senses. As the organism became more complex, internal regulation of homeostasis could conjoin with external factors to produce what we call 'emotions'.

Emotions are complex, largely automated programs of *actions* concocted by evolution. The actions are complemented by a *cognitive* program that includes certain ideas and modes of cognition, but the world of emotions is largely one of actions carried out in our bodies, from facial expressions and postures to changes in viscera and internal milieu. (Ibid, p 109).

Solms and Turnbull write: 'The 'basic emotions' appear to consist in 'hard-wired' *connections* between certain external situations of biological significance and the subjective responses they evoke' (2002, p 112). They later assert: 'these emotions provide ways of reacting that increase the likelihood that the organism will survive and reproduce, and thereby propagate its genes' (Ibid, p 113).

It was mentioned earlier that the 'seat' of feeling and emotion was in the upper brain stem and in this respect Damasio tells us, 'adjusted for body size, the basic design of the human brain stem dates back to reptilian times' (Damasio, 2012, p 250). It is therefore likely that all vertebrates have basic emotions. From this point in my analysis, I will focus however, on the development of mammals.

Jaak Panksepp describes the basic emotional systems as, seeking, rage, fear and panic.²⁸ The seeking system is activated by basic homeostatic or appetitive needs such as sexual arousal, hunger, etc., and is linked to behaviour consummate with the satisfaction of these needs. The rage system is linked to frustration in achievement of goals and is linked to aggression and the fight response. The fear system is activated as a response to an evaluation of danger (status decrease) and associated with the 'flight' or possibly 'freeze'

²⁸ See Panksepp, (1998).

response. The panic system is associated with both anxiety and loss or sorrow and therefore connected with social bonding as in parenting (Solms & Turnbull, 2002, pp 115-131).

In this section I have concentrated on the evolution of the phenotype, and how it evolves a brain/mind to manage and regulate itself using feelings of pleasure, displeasure and pain to maintain homeostasis and encourage the behaviour which maintains or improves status and thus fitness. This then evolves into more complex emotional systems which also automatically trigger responses that are best suited for status and fitness. Fear triggers a 'flight' response or possibly a 'freeze' response as either of these in the face of a detection of a possible predator will be 'fitter' than an ignore response. Rage triggers aggression and all its associated behaviours, such as bare teeth, make noise, make oneself as large as possible to either overcome an attacker, or scare off or otherwise remove something frustrating the attainment of a particular goal or need. The point I wish to emphasise is that they are all behaviours and responses that are aimed at maintaining, improving or showing one's status.

When an organism encounters a large predator at a certain place that triggers a fear response, it would be in the interest of the organism to remember and avoid such a place. Likewise, memory also becomes a good adaptation as it will improve status and fitness, as will improvements to perception and cognition, to enable it to hear, see, or smell predators, food or mates earlier; it will also make earlier inductive associations, such as, correlations between place and predators. With further development of perception/cognition, similar places or foods may be recognised to enable an organism to compare one situation to that of another, and to make simple predictions, along the lines of 'that looks and smells a bit like something I ate that produced a pleasurable taste'.

Again, good and bad adaptations can be termed with reference to fitness of the organism but from an objective perspective. From the perspective of the organism, good and bad adaptations are rendered meaningful in reference to power and therefore status. The basis of what will become a moral evaluation for us is therefore instantiated in what we can more appropriately call selfishness, which is to say, what is good for the individual organism. The organism is motivated by maintaining or improving its status, such as gaining a territory with more food or mates within it, thereby increasing its power/status, and replicating its genes.

4.2. Selfish Power as Foundation of ‘Good/Bad’ Evaluations.

This ‘selfish’ approach to moral foundations supports Nietzschean ideas as I shall explore in Part Three, and the attitude of Thrasymachus in Plato’s Republic (338c). “All right, then, listen to this,” he said. “My claim is that morality is nothing other than the advantage of the stronger party...”. I mention this to support the claim I made in the introduction that power has always been ‘lurking’ within the philosophical literature regarding morality.

The most powerful get to choose what is right and wrong or good and evil depending on whether it is good or bad for them; this is essentially a ‘might is right’ approach. Of course, it must be qualified that so far, we have only been talking about animals that have not achieved ‘sociality’, and if it were possible to think in terms of good and bad for the non-social animal then this basic biological ‘value’ system would be their ‘moral’ foundation. This selfish form of ‘morality’ is what Nietzsche called ‘master’ morality, (GM I, 2, BGE 260) which I will examine in Part Three of my thesis.

It is vitally important to understand that this foundation is within all vertebrates including humans; it is still at the core of our mind/brain. It is what we might call the most ‘primitive’ part of the brain, that which provides our ‘drives’. ^{29 30} A basic selfish understanding of what is ‘good’ and ‘bad’ for us such as this one, which is constructed on biological needs regulated by pleasure and pain, emotion, etc., lays the foundation for making sense of more complex cognitive hardware, such as empathy and ‘theories of mind’ and for sociality and the idea and understanding that what is good or bad for me is also probably good or bad for you. Here, again, good and bad relates to status, in so far as maintenance and increase in status is good, and a decrease in status is bad. With sociality comes new problems and a necessary increase in intelligence to navigate them.

Before we turn to the next level of sociality and the development of what we today recognize as ‘morality’ with co-operation, mutualism and altruism, we must first address sexual selection to ascertain the extent to which it fits into our power/status paradigm and to further emphasise the ubiquity and importance of status to ABiCADs.

²⁹ See Solms & Turnbull, (2002), especially chapter 3.

³⁰ I doubt if it is a coincidence that Plato describes Thrasymachus’ grand entrance into his masterpiece as, “like a wild animal, he crouched and hurled himself at us if to tear us apart” (Plato, Republic, 336b). Showing perhaps Plato too recognised the more primitive aspect in Thrasymachus’ definition of moral.

Chapter 5

Sexual Selection

The necessity for exploring sexual selection in a thesis on morality is to show how power and status evaluations are ubiquitous in animal behaviour and important for determining what is reproduced. I have already made the point that replication is itself an increase in power within the earth system, relating fitness to power. It also opens up a novel form of co-operation which some have suggested is a likely gateway to morality to be discussed shortly. If ABiCADs are to dissipate the energy gradient, more will be required and the ABiCADs would naturally evolve to select mates most likely to obtain the 'prime value' of continued existence. As they cannot evaluate fitness directly they would evolve to evaluate power.

Two of the necessary dimensions that early unicellular organisms evolved around were fecundity and fidelity. Usually referred to as reproduction. Reproduction in early organisms was not 'sexual' per se, it was essentially a form of cloning. Even today organisms can reproduce asexually, and so one biological mystery is to why sex evolved? Why are not all organisms essentially sexless, with a capability to copy themselves? Having to expend energy on finding a mate to socially 'fuse' seems like a lot of trouble to go to. We might well ask what is the adaptive benefit of sex? These questions cannot be dealt with here in any depth, but probable explanations include the value it gives to improving pathogen resistance and faster evolutionary processes.³¹ For example, to protect against a virus that can unlock a genome and destroy all the cells, thereby decimating a species of clones, the organism could equip itself with non-identical genomes acquired through sexual 'mixing'.

The important idea we need to understand from this scenario is that this sexual evolution led to the female producing the larger gamete providing the initial food store (energy) whilst, the male gamete can be thought of as parasitising the female gamete (Daley & Wilson, 1983, pp 72-75).

However, there is no reason for the male gamete to feel smug, as every benefit comes with a cost—as if a kind of metaphysical justice system. Every female gamete or 'egg' has

³¹ For more in depth discussion on the question of why sex and sexes? See Daly & Wilson, (1983), chapter 4.

become a prized commodity because there are far fewer of them; if the male wants to fertilise one he is going to have to earn it.

At the point of fertilisation, the parental investment of the female is greater than that of the male; she has supplied not only her genome but also the 'food' required to nurture the zygote, while the male mostly just supplies his genome. Parental investment is defined by Robert Trivers as follows:

any investment by the parent in an individual offspring that increases the offspring's chance of surviving (and hence of reproductive success) at the cost of the parent's ability to invest in other offspring. (Trivers, 1972, p. 139).

This slight asymmetry between the sexes in many animals becomes amplified as the larger investment and larger egg or 'ova' biases the female to take on further nurturing duties. Fertilisation can take place internally as with mammals or externally as with many fish. External fertilisation runs the risk of predation of gametes and embryo as well as dispersion before fertilisation by other environmental factors. External fertilisation is usually accompanied by great fecundity. Although the benefit of internal fertilisation lies in decreased risks to gametes and embryo and less chance of natural dispersion, it will require even further investment from the host of the embryo, which is almost always the female. There is a natural trade-off between nurture of one or fewer offspring or greater fecundity with greater destruction of offspring (Daley & Wilson, 1983, pp 78-79).

Once the female is pregnant there is no additional fitness-advantage to further mating for her, but there will be for the male. This situation establishes competition between males for access to fertile females, because females are far more limited in the amount of offspring they can have, due to the extra time required for internal nurturing which renders them 'off the market'. With mammals the nurturing does not end at birth, for the female has a further maternal investment in the form of lactation. Each evolutionary step that led to mammals thus had 'the effect of concentrating female investment in a decreasing number of offspring' (Ibid, p 78). This in turn amplified the sex difference. So, the question arises as to what influenced the evolutionary development of the males?

From the above it can be seen that with ever increasing parental investment from the female comes ever increasing competition among the males; the females are now 'calling the

shots', and what the females find attractive will be what drives male evolutionary change. So, what do females really 'want' in this scenario? I think this can be summed up by two related qualities. Firstly, at the very least, they seek the 'fittest' genome possible that is phenotypically displayed as a mate who is clearly superior to others in overall status. The female after all wants the best chances of survival and reproduction for her offspring, and a male who is clearly successful in maintaining a territory and providing food for himself will suggest to her that he can also provide food for her. Secondly, the successful mate will be able to provide security and material help in nurturing the young.

The above considerations would lead to an outcome whereby some males will have many mates, whilst others will end up with none. This outcome has been examined in the behaviours of many species, from fruit flies to elephant seals, and more importantly from our perspective, to apes including humans (Ibid, pp 82-90). This competition has led to increased size and strength within males in comparison to females, as well as larger offensive/ defensive equipment such as horns or tusks, and in many species, brighter markings and louder more intricate calls.

It is here where we can see, most starkly, how sexual selection has been one of the most obvious areas of the emergence of power relations. All other things being equal, such as intelligence, the female's power over the male is predominately sexual in nature, while male power comes from his physicality in general, which is to say, his capacity to provide security and materials necessary for raising offspring. We might say the female is attracted to males that are the most successful in any given environment—that they are attracted to status. And status, I have been arguing, is the measure of an organism's power; their potential for causation, such as, repelling rivals, threats, provide food, etc.³²

5.1. The 'Handicap' Principle.

In fact, status 'advertising' is at the heart of a theory known as *The Handicap Principle* (Zahavi & Zahavi, 1997). This principle not only applies to sexual selection but evolution in general, and suggests that animal markings, calls or vocalisations, behaviour, etc, are all

³² For a fuller discussion and review of all studies see Ellis in Barkow, Cosmides & Tooby, (1992) Chapter 6.

‘designed’ to advertise one’s status (their power). This theory would fit perfectly with my argument—for organisms as agents in the world are expressions of power.

Competition would dictate external ‘signalling’ of one’s power and status in order to ‘advertise’ to predators and potential mates one’s availability, to convey, for instance that there is ‘no point trying to catch me’, or ‘look at me, aren’t I magnificent and powerful, you should mate with me’. The Zahavis cite many examples of this ‘signalling’ behaviour. Their choice example is the behaviour of a gazelle when it sights a wolf. In response, the gazelle doesn’t lay still and silent, and doesn’t flee; it ‘rises, barks and thumps the ground with its forefeet all the while watching the wolf’ (Ibid, p xv). In the past this might have been interpreted as a warning to other gazelle (as part of a ‘group selection’ theory), however the Zahavis cite various examples where this behaviour cannot possibly be to warn others, but can only have been the gazelle’s way of telling the wolf ‘I can see you, there is no point trying to sneak up on me’. If the wolf happens to come closer irrespective of the gazelle’s demonstrative behaviour, the gazelle doesn’t flee, but ‘stotts’: it ‘jumps high on all four legs several times and only then begins to run’ (Ibid). The Zahavis interpret this as a signal to the wolf, as if a vocal message along the lines of, ‘look how fit, healthy and strong I am, don’t waste your time, go find someone weaker’.

The one criticism I would level at this theory is the emphasis they give to the notion of ‘handicap’. Thus, they interpret the gazelle’s stotting as a form of handicapping itself. I suggest, by contrast, that its sudden demonstration of unusual physically demanding behaviour is the gazelle’s attempt to advertise its physical status. In this respect, it signals a status of strength, not handicap. Stags do not grow large antlers to handicap themselves, but to show how powerful they are; such an adornment is easily wielded by one powerful enough to do so. Females will use these ‘signals’ to assess the status of a male for mating, following a suitable demonstration of their power, such as a ‘contest’ between stags. This kind of demonstration can be seen in human behaviour too. For instance, whilst a sports car and a large estate are a financial handicap, they are seen by all as an indication of status; this also includes clothes, jewellery, or even what clubs or groups you belong to. Indeed, this notion is core to my argument, for virtually all of human behaviour, I claim, revolves around the base-need for status in its various forms. As I will show in Part Three, this idea is core to Nietzsche’s ‘will to power’ theory.

I wish to claim that Dawkins' conclusions in his book *The Extended Phenotype* (1999) is complementary to the Zahavi's theory, when seen through the power/status paradigm. Each offers similar explanations as to how calls, markings, etc, of animals have evolved to enable animals to influence things in the world around them. Dawkins claims, 'there can be no doubt that in our society the equivalent of the peacock's tail is exhibited by the female, not by the male' (Dawkins, 2006, p 164). Dawkins, I think, is referring here to make-up, jewellery and fancy dresses; however, the peacock's tail is about power and status and, so perhaps, he should also allude to fast cars, large houses, yachts, uniforms and skyscrapers as the human male equivalent to the peacock's tail.

Early humans would have been naked, and female judgements of status may have been more in line with our animal cousins with judgements made on the physical bodily features of males, but these gradually became less relevant as social status became more relevant in an increasingly social environment. Interestingly, it is still males who principally advertise material status as with sports cars, etc. This is the case, when one considers uniforms which convey various levels of status, military uniforms especially seem to have more shiny buttons, insignia, feathers and gold the higher up the rankings one goes. These markings of status are not just for sexual purposes as it also conveys one's position in society or in a 'power domain' such as the military, police or even a church.

Female animals including humans also compete for status, principally for the materials provided by the male such as food or territory to raise offspring. For example, 'female gerbils defend feeding territories from which they aggressively exclude other females, ... so do a host of other mammalian females' (Daley & Wilson, 1983, p 91).

And so female status-competition is just as important but usually not so intense as with males.

5.2. Male Sexual Jealousy.

The capacity to recognise a change in one's status is also a fundamentally important and largely subconscious evaluation, and as I explained earlier, it is at the centre of people's reactions to others, and to feelings and emotion. Jealousy, for instance, is an emotion which has status at its core. Male sexual jealousy is thought to have evolved as an anti-cuckoldry mechanism, (Ibid, p 294), for the biggest worry for a male animal is large-scale investment in offspring that are not his own. Material investment, in the form of food and goods have a

cost upon the male animal as well as a physical cost when defence from predators or a challenging rival is taken into account. These are all drains on status for the benefit of the continuation of his genes. Making sure the offspring are his requires a behaviour which itself requires an instinctual drive, which could be in this case, the emotion of jealousy. This has huge social implications as 'constraint of female sexuality by the threat of male violence appears to be cross-culturally universal' (Ibid, p 295). This unfortunately provides the evolutionist or ethologist with a problem of what exactly is 'real' female sexuality; the answer, I suggest, is virtually impossible to ascertain due to much social 'interference'.

5.3. Sex as Possible 'Gateway' to 'Morality'.

The other reason mentioned for looking at sexual selection is that it may well provide another avenue for the beginnings of morality, for having to seduce and co-operate with a sexual partner, however fleetingly, must open some kind of door to co-operation in general. It has been argued by Geoffrey Miller (2008) that sexual selection is an important, if not the most important, contributor to the evolution of our moral virtues.

Parental nurturing also offers early indications of altruistic behaviour. Interestingly, Trivers' earlier definition of parental investment is very similar to that of altruism in general. Altruism refers to, 'behaviour by an animal that decreases its chances of survival or reproduction while increasing those of another member of the same species'.³³ This 'investment' now applies to any member of the species not just kin.

Following on from our first glimmer of altruism in the 'micro' section we can now see the foundations of what we generally call the 'morally good' action and perhaps our first possible stab at defining good and bad/evil. Thus, I wish to argue that good is a 'behaviour by an individual that increases the fitness of another individual while decreasing the fitness of the actor'. Bad/evil is a 'behaviour by an individual that decreases the fitness of another individual while increasing the fitness of the actor'. However, we need to take into account the objectiveness of the term 'fitness' and understand that from an evolutionary perspective it cannot foresee what will be fitter in any particular environment. And so, from the perspective of a developing organism, we need to change the word 'fitness' to 'status' as it is only the status of an organism that can be 'perceived' by itself or others. All feelings and

³³ Oxford Dictionary of Biology. (2015).

emotions will be geared to the organism's status. I therefore further adduce the following preliminary definitions.

5.4. Preliminary Definition of the 'Moral' 'Good' and 'Bad'.

Good is 'behaviour by an individual that increases the status of another individual while decreasing the status of the actor'. Bad/evil is 'behaviour by an individual that decreases the status of another individual while increasing the status of the actor'.

My definitions are fundamentally about power (energy) transfers and they appear opposite to the 'selfish morality' that I examined earlier, where the term 'moral' is really out of place. These definitions, as they stand, are incomplete, and serve only as a starting point, for no account of morality can be fully understood or defined until one analyses the full effects of sociality (for instance, co-operative mutualism needs to be taken into account). To this aspect I shall turn, in the next chapter. Finally, it may be noticed I have to some degree jumped from talking about accumulation of power by an individual as the 'good', at least from the subjective perspective, and now have taken altruism to be the 'good', which is the diffusion of or using power for others—a move that is more in tune with our social understanding of the 'good' and morality. This also applies to synergistic co-operation where individuals work together for their own benefit as part of a more powerful collective.

I now need to show how altruism and co-operation are related to the 'good' and why selfish accumulation of power is not 'good'. Accumulation of individual power finds expression in Nietzsche's notion of 'master morality', while, by the same token, the diffusion of individual power, or using power for the benefit of others, such as in altruism or co-operation, finds expression in his notion of 'slave' morality. It will principally be the task of Part Three of my thesis to show which of these two—slave morality or master morality—are the 'true' good or 'true' morality, and why. But for now, I return to my findings from my examination of sexual selection.

5.5. Summary of Findings from Chapters Three, Four and Five.

Similarly, to our findings in 'the micro', it was found that good and bad were defined in reference to adaptations that increased fitness. However, following the evolutionary development of mind and its capacity for 'representation', the evolved organism now has an

'in-built' guide as to what is 'good' and 'bad' for its wellbeing, with the gradual evolution of feelings, including pleasure/displeasure and pain as a guide for its behaviour and action. The mind represents both external and internal states with 'qualia'. These qualia are geared to the status of the individual organism and not to fitness in general. This distinction is vitally important. This is because fitness relies on an objective stance whereas status does not; it can be judged by the organism using its adaptations such as the Zahavi's 'signalling'.

This judgement of status via feelings and emotion are, I claim, the foundation of what will later become morality. However, it was noted that improving one's status is not the same thing as improving one's fitness, and from an objective viewpoint, morality has to be geared to existence (the prime value). But from the subjective viewpoint it *is* built on status. I have shown how important status is throughout natural selection and that it has huge implications at the level of sexual selection for the phenotype, generating competition and displays of status particularly among males. Something this important would almost certainly generate mechanisms to make judgements about status at the unconscious as well as conscious level, and it is this that explains our dumbfounding effect when it comes to trying to explain what has been judged when we ask why something was good or evil.

Lastly, it was also suggested that sexual selection 'opened the door' to morality by organisms having to co-operate with each other and devote resources to the nurturing of offspring. Now that I have generated my preliminary definitions of what good and bad/evil are from an evolutionary perspective, I will now turn our attention to the formation of groups and societies, to ascertain where morality really operates.

Chapter 6

Evolution by Natural Selection: The Macro

In this section I shall examine the forces which led to the co-operation between organisms, causing them to form social groups, and I will examine further the evolution of the mind/brain leading to what we commonly refer to as 'mutualism', 'altruism' and 'morality', to show again that this is simply the further development of the power processes so far discussed.

Given that nature had already implemented a co-operative alliance of genes to form cells, and thence, cells to form biofilms, and then multicellular organisms, it is perhaps unsurprising that many of these organisms banded together to form co-operative groups. However, for a long time it was a huge challenge for the evolutionist—especially within the nineteenth century, where I have suggested the dominant paradigm regarded nature as 'red in tooth and claw'—to explain the emergence of co-operation and particularly of altruism. Just why would the genes in one organism expend energy on another organism or risk the continuance of its genes by aiding others? This issue led to theories of group selection taking centre stage rather than those of the individual. However, if one examines the issue from a genetic perspective and a more 'holistic' perspective, answers start to become clearer.

The theory that best explains co-operation in general terms is Peter Corning's 'Synergy Hypothesis', and his book *Holistic Darwinism* (2005), presents a more in-depth analysis of many of the points I have made until now, especially regarding the different levels of evolution, co-operation, mutualism, altruism and symbiosis in nature with many examples given. In addition to that, he also provides examples of cybernetic feedback and control at each level 'governing' the organism. Let me remind us of the synergy hypothesis. It claims that the functional synergies that underpin co-operation drive evolution just as much as competition between organisms, and, furthermore, that certain behaviours may 'pave the way'—or to use Mayr's phrase act as 'pacemakers'—for evolutionary adaptation (Mayr, 1960). The main difference between the two is that co-operation evolved not necessarily from a genetic mutation, but from behaviours that gave a functional synergy; these behaviours shaped the direction for any, and all, changes. I have already pointed out that function and synergy are both power-related, and so my argument is similar in its findings,

but I argue for greater emphasis given to the nature of power and causation that is implicit in functional synergy, and for that matter competition, too. Corning writes:

In sum, the relevant factors for explaining co-operative phenomena in nature (and in human societies) may include genetic relatedness, but kinship is neither necessary or sufficient. The key lies in functional synergy and its bioeconomic consequences for differential survival and reproduction in a specific context; functional synergy is the frequently unappreciated common denominator in various models of cooperative behaviour in sociobiology. (Corning, 2005, p 34)

I could not agree more with this statement. In fact, I wish to go further to claim that it is also the 'power' of functional synergies that underpin judgements of 'morality'. I will argue for this more closely in the chapters that follow. For now, let us outline the development of co-operation from a Neo-Darwinist rather than a 'synergistic' perspective in nature at this level to show that the two different paths arrive at the same power conclusion.

6.1. The Forming of a Social Group.

Probably the earliest grouping-behaviour had nothing to do with altruism or co-operation, but straight forward self-protection. Consider schooling in fish or herding in some mammals. Each individual creature in these groups tries to get to the centre of a big group so as to be less conspicuous and accessible to predation. Coming together as a group can have the effect, not only of protecting an 'inner core', as was mentioned in biofilms, but also may give the impression of a much larger animal deterring potential predators, especially in conditions of limited visibility such as underwater.

Once animals start to group it is likely to set off a new chain of necessary adaptations requiring a gradual improvement to the CNS, such as increased perception of surroundings, and spatial orientation to get closer to the centre whenever possible, and, from this, improved predator detection. This involves a member of the group heading from the periphery to the centre at speed, thereby effectively 'raising the alarm' to others and triggering a similar behaviour throughout the group. This behaviour will lead to the species becoming, what we may regard as, a social species, spending their whole lives living together but never really being truly altruistic or even co-operative.

Consider a ‘socially defensive’ species of an early mammal that herds in the above sense. The female of this species carries the developing embryos and will nurture them from birth, perhaps in a nest. If a mutation occurred that led to an organism ‘helping’ all those it originally came into contact with—such as its siblings or parents, some of which would probably share that ‘altruistic’ gene—we would only need to demonstrate that this altruistic helping could increase fitness compared to those organisms that work alone, to understand and explain how co-operation could evolve. This behaviour is the foundation of what became known as ‘kin selection’. Although these ideas had been around since Darwin, it was principally W. D. Hamilton who developed much of the theoretical work in relation to kin selection, and crucially it was he who raised the idea of ‘inclusive fitness’.³⁴ Wilson defines inclusive fitness as ‘the sum of an individual’s own fitness plus the sum of all the effects it causes to the related parts of the fitnesses of all its relatives’ (Wilson, 1980, p. 56). This essentially means that, given two siblings share at least half of their genes, if sibling A can increase sibling B’s fitness by more than double, Sibling A’s genes may well spread at a greater rate than if it had its own offspring.

Over time ‘social herders’ will have evolved their first altruistic/co-operative behaviours. What starts off as ‘kin selection’ will have become a widespread species trait. All families will have learned to work together in a particular way. In nature we see numerous examples of non-kin and kin-working together. It is important to note, that the former cannot have a kin selection origin. To explain these key ideas, we would do well to turn to Trivers’ notion of ‘reciprocal altruism’, for Trivers explains that all that is required for any behaviour to perpetuate, is to have its overall beneficial fitness outweigh its costs (Trivers, 1971). Grooming in animals exemplifies Trivers’ point. Grooming may well have started as a mutation in one family. Parasites are big problems to animals, causing disease and possible death, and so a small investment of time spent grooming each other will have a big pay off with regards to their fitness. However, what I am interested in is how the ‘reciprocal’ part is triggered. Why not just receive the grooming from another and not reciprocate? The main line of explanation to this problem lies in the ‘environmental stable strategy’, which is often formulated as an iterated ‘prisoners dilemma’ from game theory.³⁵ The basis of this idea is that groups over time will evolve increasingly altruistic and will develop mutualistic traits that raise overall average individual fitness. They will also of course be evolving a CNS of increasing complexity.

³⁴ See Hamilton, (1964, 1970, 1971a, b, 1972)

³⁵ See Barkow, Cosmides, & Tooby (1992), Chapter 3 for an in depth exposition.

In this scenario individuals will come to recognise each other and will develop a memory of past interactions, and this will lead to the development of stable behavioural strategies, such as 'tit for tat' (Axelrod & Hamilton, 1981).³⁶ This is a starting position of altruistic co-operation, so that A will groom B if B reciprocates and grooms A, and the next time B needs grooming, A will be confident in obliging. If, however, B does not reciprocate by grooming A after A has groomed B, then A may be more reticent about grooming B on the next occasion. A and B will thereby gain a 'reputation' within their group. In a large enough group, B may do very well by 'cheating' and never grooming anyone else. However, in a smaller group, B will soon run out of willing groomers and will end up potentially being plagued by parasites with the negative effects. As the co-operative, altruistic groomers will remember each other, their overall inclusive fitness will increase, and the mutualistic/altruistic 'tit for tat' gene will spread. This will mean that in the group even non-related members may well groom each other or engage in other co-operative behaviours such as hunting and food-sharing.

This effect can happen between different species. We can imagine a situation where a predatory meat eater, a lion, which is prone to parasitic invasion, allowing a certain animal, a bird perhaps, to come and pick the ticks from its body without attacking and eating the bird. The bird gets a meal and potential protection to some degree from its predators. The fitness of the bird is therefore increased, and the groomed lion gets a fitness advantage, too, from having less chance of disease and more chance of mating. All that is required for the behaviour to perpetuate is that the 'don't eat the bird' strategy increases fitness to a greater extent than the 'eat the bird' strategy. These symbiotic relationships are demonstrated throughout the natural world.³⁷

The above shows how group living, sociality, and the beginnings of co-operation and altruism within a group can evolve. The evolution of the organism required the coming together of individual cells to increase its power via functional synergies, and, similarly, each individual organism can be regarded as part of an evolving 'social organism', with individuals working together as communities. Wilson lists some of the advantages of living in groups, which includes: defensive superiority, increased competitive ability, increased feeding

³⁶ Also see Axelrod (1984).

³⁷ Trivers provides an illustration of it with cleaner fish (Trivers, 1971) also see Sheldrake (2020) for examples of symbioses between fungi, plants algae and bacteria.

efficiency, penetration of new adaptive zones, increased reproductive efficiency, increased survival at birth, increased population stability and manipulation of the environment.³⁸ Essentially, these describe new functional synergies that have similar benefits to fitness as with biofilms—in other words, the increase in collective power and status of the group, in turn increases the individual fitness of a species, which of course means increased replication of the genome.

In section 5.4 I presented my initial and tentative definition of good and bad from an evolutionary perspective. Let us apply these definitions to the behaviours of this early social group. As a reminder, here are my definitions:

- (1) Good is 'behaviour by an individual that increases the status of another individual while decreasing the status of the actor'.
- (2) Bad/evil would therefore be 'behaviour by an individual that decreases the status of another individual while increasing the status of the actor'.

If A grooms B, then this is a 'good' act by A, as the time and energy spent grooming may be seen as a decrease in status. If B does not reciprocate, this would be seen as a 'bad' act, as B's status has been increased. We can see that the emergence of a 'tit for tat' strategy has the effect not only of increased fitness/status for members of the co-operative group but also the basis of a 'justice' system, by effectively punishing the 'bad' individual—given that fewer and fewer individuals will be willing to groom the 'bad' individual. The 'bad' individual would get a temporary advantage, but eventually when nobody is left willing to groom them, they will become parasite-riddled or ostracised with a large downturn in their fitness. In order for one to learn from this, an increase in cognitive ability will be required, so that the 'bad' realise the specific behaviour which led to them not being groomed, enabling them to rectify that behaviour. We can also see the basis of 'moral judgement', and perhaps the social emotions such as guilt, shame, humiliation, anger, disgust and contempt caused through a perceived 'injustice' and reduction in social status, as well as the foundations of the 'social contract' and 'duty'.

³⁸ See Wilson, (1980), chapter 3, pp 20-31

6.2. The Emergence of ‘Duty’.

The groomer, by refusing to groom the ‘bad’ imposes a sanction—or what is known as ‘altruistic punishment’. With cognitive developments to rudimentary communication within the group, the ‘bad’ may be ‘marked’ among the group before they try to attempt to be groomed again. This may require an act of contrition such as grooming another or others, signalling conformity with the social ‘norm’ (rehabilitation) before they receive grooming again. This would suggest that sophisticated social groups have specialised cognition for the detection of ‘cheaters’ and this does seem to be the case with studies in humans.³⁹ In fact, the evolutionary battle between ‘cheaters’ and ‘co-operators’ seems to be right at the heart of the ‘moral’ field, with its roots—as I argued earlier— in ‘cheating’ genes and unicellular organisms. Social groups are always vulnerable to exploitation by ‘cheaters’ and will evolve to defend itself accordingly. The ‘cheaters’ at this level are the selfish individuals who are out for their own interests, essentially parasitising the group by their behaviour—again, acting ‘myopically’ at the previous ‘selfish’ level and not at the social level.

In a complex social system, social duties will emerge that include some of the other areas mentioned above by Wilson, such as defensive responsibilities, child care, hunting and gathering and even reproduction itself. This then will instantiate in all the members of the group a collective interdependence on each other. This realisation of interdependence gives the group member a new concept. Michael Tomasello tells us:

And so was born the new cast of characters about whom individuals must care if they hope to be successful in acts of joint intentionality: ‘I’, ‘you’ and ‘we’, the essential menage a trois from which the human morality of fairness has sprung. (Tomasello, 2016, p 53).

This conveys that there is a fairness born of functional synergy or ‘power’, which establishes a new ‘social organism’, which ultimately increases the fitness of the individual members. Corning cites Harding and Strum when he describes an example of how baboons learned a new hunting behaviour through functional synergy. This learnt behaviour is basically a form of conditioning via environmental feedback, for a positive outcome from a behaviour that

³⁹ See Cosmides & Tooby (1992). Chapter 3 in Barkow, Cosmides, & Tooby. (1992).

was perhaps random or unintended will be reinforced, much like with B. F. Skinner's famous pigeon and rat experiments.⁴⁰ Corning's citation of Harding and Strum is as follows,

In one such incident, three males noticed another male chasing a gazelle and ran towards him. To get to the scene of the chase, they had to ascend a small hill that concealed their approach from both predator and prey. Just as he was about to abandon the chase, the baboon in pursuit of the gazelle suddenly found the three other males blocking the prey's escape route. The closest male then took up the effort, and when he appeared to flag, another continued it. For a moment the gazelle appeared to be outrunning its pursuers, but it changed direction in response to a similar movement from the baboon chasing it, and in so doing, ran into the third of the newly arrived males. The gazelle almost escaped when the pursuing baboon momentarily hesitated, but a quick bite to the underbelly put an end to the chase.

From that point on, the male baboons gradually adopted this relay system as a regular stratagem, chasing their prey toward a nearby male instead of out on the open plain. Such joint ventures appeared to be more successful than those carried out by lone males. (Harding and Strum, 1976, p 51 in Corning, 1983, p 292).

The baboons learned a new and more effective way of hunting, which could be observed and mimicked by other baboons over time via social or 'cultural transmission'. This behaviour, Corning argues, acts as a kind of 'scaffold', which, over a much longer period of time, could become 'hard-wired' as a psychologically evolved trait, much like the behaviour of suckling in infants. Mutations and combinations can establish the evolution of new behaviours, but, significantly, behaviours can shape the direction of mutations. Either way, the main point I wish to highlight is that the behaviour which gave most power to achieve teleonomic goals—in the case of the example of baboons it is obtaining food—gets selected for both in short term learning behaviour and gradually through evolution of the genome.

Part of the 'social' cognitive system will involve 'meta-representation', whereby the animal will represent and likely adopt the behaviour of others. With this representing of other

⁴⁰ B. F Skinner wanted to develop the 'Law of Effect' proposed by E. L Thorndike. He established 'operant conditioning' as an important part of our learning process. Skinner developed a piece of equipment known as a 'Skinner box' to study learning in pigeons and rats. 'A Skinner box is simply, a box. It will tend to have a metal grid floor; a food delivery chute; a lever or some kind of easily-operated switch; and usually a light. The most important features are the lever and the food delivery chute. ... a hungry animal ... is put into the box.' Hayes, (1984), pp 297-298. The animal explores the box and on occasion pushes the lever releasing a food pellet into the box for it to eat. Gradually the animal builds up a connection between the lever and the reward of food. It 'learns' to press the lever to get food. See Skinner (1938). Thorndike (1911).

perspectives and mimicking behaviour, an animal will adapt its behaviour in certain situations, such as the situation of being watched by another.⁴¹ When we examine this behaviour linked to meta-representation in relation to humans, we tend to subsume it within a 'theory of mind'. Within human contexts, this meta-representation also extends to the group, to inanimate objects and to other animals, where the group, in the abstract, can be taken to be a representation of the 'individual'. Furthermore, actions pertaining to the increased status of the group can be viewed in this context as 'good' (as in the case of going to defend your community from attack), while actions which decrease the status of the community can be seen as 'bad' (such as not helping defend the community). This scenario, I wish to claim, opens up the 'moral' field for the likes of Kant and deontological ethics, for this is essentially where the moral 'ought' is born—it is where the individual's necessary contribution to the power and status of the group occurs. It is also the basis of the recognition of self-other equivalence within the group—a kind of systemised structure of equality (and I will argue for this in detail later).

At the level of the social organism, the CNS, including its representations, has the function of preserving the status of the group as well as the individual organism and its social status. This would require a complex CNS indeed. It would require a mechanism for 'overriding' the selfish 'reptilian' foundation of the CNS. Joseph LeDoux tells us that 'the cortex's job is to prevent the inappropriate response rather than to produce the appropriate one' (LeDoux, 1999, p165). Solms and Turnbull, concur, when they say 'the essence of 'free will' appears to be the capacity for inhibition' (Solms & Turnbull, 2002, p 281).

In other words, this is precisely the sort of thing one would need to develop for communal living. They also locate this function to the pre-frontal lobes, which they describe as: '(the crowning glory of the human brain)'. And which, they go on to say, 'bestow on us the capacity to *suppress* the primitive, stereotyped compulsions that are encoded in our inherited and emotional memory systems' (Ibid.).

In the most highly developed social societies a specialised functionalisation may occur, as with the hymenoptera (bees, wasps, ants). Here a true social organism can be observed. This is known as 'eusociality'. It may be argued that humans are partly 'eusocial' in so far as our communities require specialised functions, such as an army, farmers, doctors, and so on. What is fundamentally different between human and hymenopteran societies, however,

⁴¹ See De Waal. (2007). Chapter 4 in general, p 169 in particular.

is that humans have come to 'eusociality' from the background of individualism, with all the cognitive hardware of the selfish individual still in place but with sociality having evolved later, whereas the hymenoptera may have evolved from a position which involved a more 'direct' 'co-operative' mutation—an evolution developed such as that which comes from 'cloning'. It is interesting that Wilson asserts that, 'natural selection extended long enough always leads to compromise' (Wilson, 1980, p 67). This seems to confirm the equation that I arrived at in Chapter Two in my examinations of 'the micro', which is to say, that ultimately, co-operation = existence.

6.3. A Useful but Simplistic Model of Mind.

I wish now to use a simplistic model of the human mind to develop my understanding of how we formulate judgements of 'good' and 'bad'. As I have been arguing, our basic emotional responses and selfish survival mechanisms inform us of what is 'good' and what is 'bad' for 'me'. Let's call this the 'selfish brain' but in instinctual competition to this are the messages received from our socially evolved brain, which tells us what is 'good' and 'bad' for others and the group as a whole. Let's call this the 'social brain' this (selfish/social) combination is required to understand what is 'good' and 'bad' for me in a social context. That is to say, how one can improve one's social status. Good and bad are still being used here in terms of status in this context, however we now have a 'meta-representation' of social status to consider as well. For example, our selfish instincts tell us it is 'good' to grab the last sandwich from the plate (the selfish good), while the 'social brain' compels us to reflect on the fact that, as I have already had more sandwiches than others, the others may judge me as selfish and greedy, and thus 'bad', and this identification as 'bad' will reduce my social standing, which in turn effects my influence (power) over or within the group. The 'social brain' is also the part which informs us of the 'good for the group' assessment, and leads me to conclude that 'if I take most of the resources, the group as a whole may not function'.

Whilst the above may be an overly simplistic model, I think we can relate very easily to it in terms of helping us to see the beginnings of the 'good voice' or 'bad voice' within our minds, and our instinctual need for a public 'image' to protect. We should also consider this in light of our 'will to power', as the fundamental instinctual drive to increase or preserve our status. Even in social systems and functional groups the basic drive or will to power becomes manifest, forming social hierarchies within all power domains. Here power domains refer to the functional requirements of a society, such as defence, arts, law, education, food

production, and so on. Whilst advanced cognitive animals may work well together, the fundamental drives and sexual attractions of these animals are still in place and active, all of which demands ascension where possible within the hierarchy, for increased status opportunities leads to greater chances of reproduction 'where constraints allow'. In human societies the tension between 'the selfish good' (individual increase or maintenance of status) and 'good for the group or member of it' (increase or maintenance in status of the group and its members) is where our moral decision making begins, and is the cause of many 'moral dilemmas'. I will revisit this important idea in the conclusion to Parts One and Two.

6.4. Groups, 'Identity' and 'Moral' (Power) Dilemmas.

A 'group' could refer to a family, a village, town, state, or to organisations such as corporations or the Church, or even to our human species in general. Groups found the basis of 'identity' psychology, for early human groups, as well as those of other animals, would have been in competition with each other for resources and territory (and, of course, they still are).^{42 43} The 'social organism' has its functional units or power domains just as the cell or organism has its functional units. These include government, arts, entertainment, military, religion, etc. They all, to greater or lesser extent, have social power and therefore hierarchies will form within them, and because a cybernetic system a hierarchy is necessary, they will all to some extent 'suffer' from the dilemma of the individual's inner conflict, between that is, the individual status and that of the group or domain to which they belong.

As power/status is the 'will' of the animal, individuals in different domains will be in conflict not only with each other for status but also whole domains will compete with each other for resources—in our human domain this is often couched in terms of money, which itself is a proxy for power. This conflict and competition provides a constant dynamism and tension in 'moral' assessments, which lead to moral dilemmas. Competition within a co-operating structure can be beneficial as long as the status of the whole is the ultimate consideration, and not individual elements within it. But this is always a tension based on judgements of power and status, of the kind I have assessed throughout my thesis.

⁴² See Tomasello (2016), chapter 4 for more on the evolution of group and cultural identity, conformity and social 'norms'. What he calls 'objective' morality.

⁴³ See Kennedy (1988), for an analysis of national power struggles over the last 500 years.

Let us consider some examples to highlight the point that moral dilemmas are really status evaluations.

1) The person who refuses to fight for their state or country during a time of war because they are ideologically against violence. The status of the state is perceived to have diminished if it has one less sword, or gun to protect it. If such an attitude spread to other citizens that state would fall to its attackers. If the status of the state is reduced in this manner, so too, are the individual statuses of those who comprise it. However, if we consider humanity as the group or global organism, then going to war with another part of humanity could be viewed analogously to one arm of my body attacking my leg, and reducing the status of the body as a whole. This scenario can be regarded as a system of maintaining, improving or destroying functional synergies.

2) An organisation which includes a member behaving in a socially unacceptable way, such as a paedophile. This socially unacceptable behaviour has the potential to bring down the status of the organisation, and, also—as with the first example—the status of all those within it. This situation may lead to the sanctioning of behaviours that aim to restrict the impact on the group, so that it is enclosed and separated in some respects from those outside of it—behaviours such as ‘keeping quiet’ and dealing with it ‘in house’. Those having to make the decisions will be torn between reducing the status of the perpetrator through the appropriate social mechanism, judicial systems in human societies, and reducing the status of the organisation and thus themselves through the publicity it will generate. In other words, it will involve a meta-representation of ‘group image/status’ often referred to as the ‘greater good’.

3) The woman who chooses to abort a foetus conceived through rape. There will be a whole host of potential power/status interests here. Firstly, the woman herself who has opted not to waste energy and resources on nurturing an offspring from an unselected gene source. This is probably the main reason why rape in nature is not the primary means of breeding in many if not most species, since females are largely the ones with the valuable eggs and nurturing bodies, and as such they have the power to abandon the offspring at birth. If the rapist father is not there to step in and supply food for the infant, it will of course die. This female choice therefore has the critically important function of keeping undesirable genes from spreading. It is, I claim, the basis of female sexual power.

Secondly, there will be interest from those groups who wish to maintain power over their own bodies without influence from other people’s concerns about what happens within it, or

to it. Thirdly, there will be interest from those whose 'meta-representation' of the foetus as a 'human with all the rights' that they wish for themselves. That is to say, of not having someone else deciding whether they should live or die and being powerless to act. Fourthly, this scenario involves the interest of the rapist father, who may well want his offspring to live—after all, the offspring will comprise 50% of his genes. There may well even be a fifth group to consider here, and that is the interests of a state or organisation, which may be over-populated, and who may subsequently take the view that abortion is the preferred outcome as this will help to preserve the power/status of the state by protecting its limited resources. By the same token, if the state or organisation is short of people and wishes to become ever more powerful through an increased population, it may enlist an anti-abortion stance in order to increase its power/status by increasing its citizens, workers or followers.

I have deliberately written the examples of 'moral' dilemmas/situations above without recourse to 'moral' language, in order to highlight where and why the terms 'good' and 'bad/evil' are employed in each case, and how dilemmas are created by the different power domains competing against each other for status. In example 1, the person refuses to fight as they meta-represent the status of humanity as the group under consideration, so therefore what is morally right or 'good' for humanity is not to 'infight'. The state and other citizens may only be meta-representing at the level of the state, and may subsequently regard the person's actions as morally wrong or 'bad'. The 'moral radar' in this case is on a lower setting (I will expand on this notion in Chapter Ten, where I analyse in more detail the significance of power and status to psychology). Other citizens may even accuse that person incorrectly of cowardice and acting out of self-interest.

In example 2, the organisation with the paedophile knows that the paedophile's actions were unacceptable and illegal, and appropriate legal authorities should be called, however they are worried about the 'bad' effects on that organisation and how that may well not only reduce their status if they inform the authorities, but that it will also undermine what they feel are the 'good' works of the organisation. And for the good of the organisation, in this case, the 'bad' of the individual is not reported.

In example 3, the raped woman, who aborts the foetus, perceives herself to have acted according to the 'good' for her—the 'selfish good'. However, there is also a social evolutionary argument to be made that concurs with the notion of 'good' here—the replication of genes is, after all, the 'goal' of the phenotype and organisms in general. Rape

bypasses the foundational notion of 'female choice/male competitiveness'. Rape therefore potentially forces any undesirable genetic combination into the gene pool. Those who make the case that the foetus is a human entitled to all the consideration we give to other humans, essentially are meta-representing themselves as the foetus, making the point that it is not acceptable for a person or perhaps group of people, not even the parents of the foetus in question, to have the power to 'snuff out' what is equivalent to 'my' own human existence. Abortion has many other status implications and complexities in general between individual and group, leading to conflicting claims of what is 'morally' right.

My purpose here is not to try to solve these moral (power) dilemmas—to do so would involve an argument that evaluates and ascertains the hierarchies of importance of the various competing group/individual statuses, to explain satisfactorily why that hierarchy is correct; and this hierarchical levelling may change in different situations. My intention, rather, is simply to highlight the intricate interplay of levels (individual or group) as well as the intra-play within that level, such as the status of one organism (raped woman) compared to another (foetus); or, as with the paedophile example, the 'good' for society as a whole, compared to the 'good' for the organisation. But most importantly, my intention is to show that these 'moral' conflicts and judgements are judgements about power/status dynamics of the individuals or groups. A 'moral' dilemma is really a power dilemma a decision about who one will empower or disempower and crucially who one 'ought' to empower and disempower and why? More on this important 'ought' question in the conclusive Chapter Thirteen.

6.5. Revised Definition of the 'Moral' 'Good' and 'Bad'.

My discussion of these cases allows me now to modify my earlier definition of good and evil to the following,

- (1) Good is 'behaviour by an individual or group that increases the status of another individual or group while decreasing the status of the actor'.
- (2) Bad/evil is 'behaviour by an individual or group that decreases the status of another individual or group while increasing the status of the actor'.

Again, it is unlikely that this simple definition will prove sufficient to all scenarios as the relationship between the individual and the group is synergistic, and in a synergistic relationship that which appears to be a loss of status for the individual actually increases the

status of the individual, elevating it to a new level within the group. An example of this would be the local businessman who contributes money to social projects in his town, and when others notice his commitment to these community projects, his social reputation increases, and, in turn, people frequent his business more often, thereby securing his future income. This illustrates a new level of the 'tit for tat' strategy. By the same token, a businessman who demonstrates no commitment to the community is likely to experience the opposite, adverse effects.

6.6. Memes.

Before we reach our conclusions to our examination of the 'macro' level of evolution, I think it is appropriate to outline briefly the significance of 'memes'. Meme is a term coined by Richard Dawkins to describe a particular kind of idea that replicates in the cognitive environment, in a similar way to genes replicating.⁴⁴ Memes are thought by Dawkins to replicate throughout human culture (via cultural transmission); they of course can mutate and often do. A meme can be a tune, a story, a theory, a political or religious idea or dogma, a behaviour or any concept or string of concepts that captivate a group's attention. Just as genes compete for existence on earth, so too do memes by competing for attention in a group's cultural mindset by shaping knowledge and belief, and in turn, behaviour. Memes therefore can also be seen—in line with Dawkins' notion of 'extended phenotype' and complimentary to the physics of 'will to power' and Corning's 'synergy hypothesis' as agents of affect.

A meme can be used to manipulate another mind, by appealing to its logic, its vanity, its fears, its needs, desires, etc. A composer who creates a tune which becomes popular has affected others, and this in turn may raise their status in society. The same is true for other artists. Because memes have power they will be adopted by people, and no doubt abused by others. Culture is a domain of power-relations, with different interests competing and often co-operating together. Political memes include royalty, communism, democracy, capitalism and the notions of state, patriotism, nationalism, etc. We might even include religion alongside the political, where religious memes have been used to bring followers to heel, in the similar way royalty, or democracy has.

⁴⁴ Dawkins, (2006). Chapter 11.

I wish to argue that religion ‘evolved’ within human culture and society in the same way science and politics did, and they all have certainly suffered from ‘power games’ and posturing, schisms, factions and faith in their ideas, methods or dogmas. A scientist’s or philosopher’s reputation and perceived status might be so tied to a particular theory that when a new theory comes along that challenges it, they may seek to reject it outright. As Lee Smolin asserts, ‘in our attempts to make unbiased evaluations of our peers’ work, we professors tend almost reflexively to reward those who agree with us and penalize those who disagree’ (Smolin, 2006, p 265). Science, religion, commerce and politics, I argue, are all manifestations of power as they all have their various social roles and resources to compete for with individual status dependent on the ‘power’ of the domain within the social organism.

As memes have power to affect an individual or millions of individuals they will also contribute to fitness. A nation may survive purely because people want to fight for it out of a perceived identity with that nation; a nation is a meme in exactly the same way Christianity is a meme. The authorities will be just as harsh to those who do not conform to the dictates of the meme or disagree with the meme. Treason is in this respect as ethereal as heresy, for in both cases they challenge an accepted meme structure, which otherwise keeps a certain group of people together and a certain group of people in power. We may even be able to reduce memes down to functional units—certainly they seem to have a functional existence and if they have a functional existence they can be adaptive and unadaptive.

6.7. Findings from ‘The Macro’.

I initially sought to explain how sociality could evolve from individual organisms via genetics and/ or functional synergies from behaviour. I explained how this in turn, required cognition to improve survival rates and opportunities to replicate within that group dynamic. The development of cognition led in turn, to improvements in perception, memory, and other social adaptations. These notions help infer a ‘theory of mind’, related to conspecifics and meta-representation of the group and to an individual’s interdependence on others in the group. As such we arrive at a scheme where members within the group have structural equality within it. Groups have to be co-ordinated (cybernetic feedback and control) if they are to be functionally efficient. A repercussion of this is the inevitable development of social hierarchies, which will upset, to some extent, the ‘systemised’ equality that is otherwise evident in them. However, the hierarchies within human social groups have to be different

from the 'pecking orders' of other more primitive forms of social species, in so far as human groups involve a kind of 'social neuron' dedicated to the optimal functioning of the social organism, and not to pursue the interests of individual power and status. Clearly what I describe here is a form of political evolution, which human beings are in the process of evolving.

I also put forward an argument to explain how 'moral' assessments evolve, initially in the form of emotions, and how moral assessments are fundamentally constructions of power/status relations between individuals, but also between 'meta-represented entities' of the group such as notions of states, organisations, family, and so on—all of which leads people to 'moral' conflicts. What might be 'bad' for the family could be 'good' for the state or organisation, and what might be good for a state may be bad for another state or humanity as a whole. This level of 'group' could be referred to as the 'meta-macro'. The meta-macro could in theory extend to other species, especially those that humans become dependent on for their survival. As we begin to understand our eco-system and what affects it, and by extension, what affects us, we can expect to find—and indeed do find—the development of moral concerns to address these environmental concerns. Again, what we discover, is the emergence of a moral concern that is founded upon the maintenance or improvement of our status as a group, as well as our individual status. If humans ever start to explore the galaxy and discover alien species, our interactions with these other species would inevitably include this meta-macro level of 'moral' behaviour.

I have examined the phenomenon of 'memes' and their power in human cognition, and I suggested they, too, are functional units of affect, and can be adaptive, which of course implies that, like genes, many will be unadaptive or have a neutral affect. The 'macro' is also the next logical leap in the 'synergy fractal' that I outlined earlier in my considerations of the 'micro' level: that is to say, the next stage following the development of cells to biofilms, and from biofilms to multicellular organisms. The next step is thus, the social organism or 'group'. Again, this natural evolutionary development reflects the basic physics or biological development of 'will to power'. The social organism or group is the next elevation in power following the individual; it is the next level of energy capture, degradation and dissipation in line with the maximum entropy production principle. Just like the 'lower' levels, the 'macro' level of co-operators can be invaded by 'freeriders' or 'parasites', in this case we would see them as selfish individuals or sub-groups. Let us now consider an objection to a 'direction' in evolutionary processes.

6.8. The Gould Objection.

Before I move on to summarise my conclusion to Part One, I want to consider an important objection to the idea that there is a 'progress', 'drive' or direction in evolution. This has often been couched in terms of fitness, size or complexity. The argument for a direction is the seemingly obvious fact that life started out as microscopic simple unicellular organisms, but now there are diverse arrays of large, complex organisms hence a direction from simple and small to large and complex. Fitness should be ruled out as a 'driver' and regarded more as a 'sorter' as it has already been argued that bacteria and these simple unicellular lifeforms have been around at least three and a half billion years and are still abundant, and far fitter, than all the trophic levels above them. Furthermore, that increased fitness at the lower levels of the trophic pyramid is a necessary requirement to 'build' the next level, unless additional food sources (energy) can also be harnessed by the more complex organism, such as sunlight.

Stephen Jay Gould makes the point that because life starts in its simplest form, there is only one direction for it to go. Totally random mutations with no driving force would still 'progress' in the direction of greater complexity or size. He uses an analogy of a 'drunkards walk', where the drunkard starts at a wall, which in general he calls the 'left wall' and moves either forward toward the road and gutter or back toward the wall. He claims that even within random conditions such as this there is a 50-50 chance he will step forward or backward, and he will eventually always reach the gutter (Gould, 1996, p 150). In analogous terms, we can regard life in its simplest form as the left wall, and life will inevitably go in the only direction it can—that being greater complexity.

As I have argued throughout Part One, size and complexity—irrespective of the conceptual difficulties in arriving at a definitive definition for them—is not the key consideration for making sense of the evolution of organisms. Rather, as I continue to argue, it is more realistic to assert that evolution is founded on the tendency towards greater power, as and when constraints allow. However, from the findings of Ulanowitz (1995), with his conception of autocatalytic loops, scholarship on evolution began to accept that there is an asymmetry toward growth and increased power, and that this is not because it is driven necessarily by a force inexorably toward greater power, but any backward steps tended to extinction, which even a bacteria can achieve if it develops a functional inefficiency. Bearing all this in mind, we find that Gould's analogy is problematic: for if the 'drunkard' steps back, he is most likely

going to be consumed by those that didn't. A better analogy would perhaps be to postulate a million drunkards, where each time one steps back randomly, they find their life extinguished. Only the forward-stepping drunkards survive, and only they are able to reach the 'gutter of continued existence'. But I concede that Gould's point is well made, in so far as it does not reveal a 'drive' or direction, only an 'apparent' drive or illusory direction from the 'law of big numbers'.

Humans are rather oblivious to the law of big numbers and many 'cons' and misunderstandings can be attributed to this 'law'. We have evolved a 'pattern seeking' brain (I will expound on this in subsequent chapters), and we can see patterns where there are none, faces or animal shapes in clouds for example. But by this law I can appear to possess unbelievable skills of clairvoyance, at least to a few. A well-known gambling con involves a person putting an advertisement in the paper or online, claiming to be a brilliant sports tipster due to years of experience of studying statistics or inventing a great new computer program. The advertisement gives a phone number and only demands you pay a percentage of your winnings (let's say 20%) after the fraudster gives you their 'winning' tip. Let's say 1000 people call in wanting to know who is going to win in the first round F.A cup tie between Arsenal and Liverpool. In this scenario I will exclude the possibility of a draw as an outcome, for the sake of simplicity. The tipster tells half of those who call in that Arsenal will win, and to the other half, that Liverpool will win. As a result, the tipster will earn a nice profit from whoever wins. Furthermore, at least 500 people will call again for the next round, where again half are told one team will win and the other half will be informed that the other team will win. This goes on until only a handful of people are left happy and in absolute amazement, believing that they can verify the tipster's powers of prediction and how much richer they are for the next set of advertisements. Likewise, you often hear in the press about the person who had a premonition or dream about the flight they were about to take crashing. Scared by this pronouncement, they decide not to fly, and sure enough, the plane crashes, reinforcing their beliefs about 'supernatural' powers. But, of course, you never hear about the ones who didn't fly due to a similar dream when the real plane didn't crash, or, indeed, of the ones who had a similar dream and flew anyway on a plane that made it safely to its destination.

My argument does not depend on there being a mysterious will to power force that directs our behaviour. Although I have presented it in thermodynamic terms, taking as my starting point, the fundamental fact that energy gradients tend to equilibrium, and where this is

impossible, they tend toward more powerful systems where constraints allow. My argument is based on evidence from science, not metaphysical postulates of supernatural origin or speculation. The argument also allows for the fact that an apparent will to power can emerge from randomness.

To illustrate my meaning, let us imagine the 'big bang' event occurred, and that it produced a variety of fundamental particles, I will call these hypothetical particles, 'spacedust'. This spacedust has been produced in vast quantities and its particles randomly collide and interact with each other in a chaotic fashion. A proportion of particles in this spacedust will interact with each other to form a multitude of slightly more complex particles such as quarks and electrons and hundreds of other types. A proportion of these will interact to form protons, neutrons, and with electrons they will form atoms. The other particles cannot interact.

I covered in Chapter One the key dynamic processes that underpin these interactions. As I explained, these kinds of interactions are random and gradually start to have effects on each other (they may, for instance come together through gravitation), to present a situation where order can be detected and be seen as a small subset of chaos. Here larger entities are gradually created, and these will have greater effects on each other. In this scenario, the will to power can be as much a creation of chaos as of a thermodynamic 'driver'. In this development scheme, we arrive at the same 'anthropic' place, where what can 'survive' will 'survive', whether it is organic or not. An 'apparent' will to power will have the same conclusion for life and 'morality' as a 'real' physical driver, such as the maximum power principle in NET; power is still the conserved progressive emergent phenomenon from chaos, where constraints allow.

Nevertheless, some evidence for a 'driver' in evolution is provided by the fact that in areas of higher energy, such as more sunlight or 'available energy', there is more life and diversity of life, which would be a prediction from the two manifestations of the will to power previously mentioned. The first manifestation would just produce more ABiCADs in higher energy areas where constraints allow, such as water availability for plants. The second manifestation would 'sort' and provide the diversity directly. Evidence for this is provided by Andrew Clarke and Kevin Gaston, who find that energy availability does not fuel diversity directly but, rather 'it increases biomass and/or abundance, and diversity may increase as a second-order

effect through population dynamics and speciation processes' (Clarke & Gaston, 2006, p 2263). Evidence for greater diversity with greater available energy are well known. Thus,

The latitudinal diversity gradient is one of the most striking biogeographic patterns on Earth (Fischer 1960). For virtually all taxonomic groups, species richness is highest in equatorial regions and declines towards the poles. This pattern holds for marine and terrestrial organisms, for living and extinct taxa (Crame 2002, Jablonski et al. 2006), for ectotherms and endotherms, and for taxa that differ in body size, mode of dispersal, and trophic level (Hillebrand 2004). (Schemske, Mittelbach, Cornell, Sobel, & Roy, 2009, p 246).

It is unlikely that this linear dispersal and greater abundance correlation with available energy would be found if purely random processes were at work. So, evolution by natural selection should not be thought in terms of 'descent with modification' but in terms of 'ascent by modification'.

6.9. Summary of Thermodynamics and Natural Selection

Part One of this thesis has analysed and expounded the physical and biological foundations of morality, and its corresponding definitions of good and bad/evil. In Part Two I will examine how psychology can contribute to this foundation, drawing upon my theory of power relations.

To reiterate my definitions of good and bad/evil are as follows,

- (1) Good is 'behaviour by an individual or group that increases the status of another individual or group while decreasing the status of the actor'.
- (2) Bad/evil is 'behaviour by an individual or group that decreases the status of another individual or group while increasing the status of the actor'.

I arrived at my definitions from an analysis of behaviours of organisms and animals, and such behavioural dynamics that underpin kin selection, parental nurturing and inclusive fitness, and so on. My definitions principally involve altruistic behaviours, they do not fully encompass the mutualism inherent in co-operation and functional synergies. The altruistic or co-operative behaviour that can be observed within functional groups does not decrease an individual's status, but, on the contrary, increases it. This group dynamic is not reflected in definitions of altruism, or in my definition of good and bad, but it should be nevertheless

borne in mind when understanding and defining/explaining morality. My above definitions are *prima facie*.

Underpinning my research is the crucial ideas that one's power/energy is instinctually or naturally used for the empowerment of others, whether they be individuals or a collective group. In response to the ultimate philosophical question, what is the meaning or purpose of 'life'? My answer may feel rather anti-climactic. For me to claim that 'life' is an energetic system that is naturally constructed, which captures energy, and involves its degradation and dissipation may seem rather dull to some. Nevertheless, the laws of thermodynamics suggest that, when one examines the core motivations and behaviours that underpin life, that is principally all there is to it. However, from out of this natural 'will' to equalise energy gradients, comes the organisation of matter into autocatalytic dissipation systems, and where possible, an increase of power into the system to achieve this evolution. This gives us, I argue, our first manifestation of the will to power.

Once the autocatalytic system can self-sustain it develops genuinely new phenomena in nature; it establishes itself as a kind of 'self' that generates its own cause and effect. Self-sustenance is also known as survival or continued existence, and this could be interpreted as the 'prime value' of the system. Replication is also a type of self-sustenance as it involves self-copying. In terms of evolution of species, fitness is identified with the continued existence of ABiCADs (Autonomous Bio-Chemical Autocatalytic Dissipaters). 'Life', where possible, will move toward more and more powerful systems through mutations, symbiotic co-operation, competitions and co-operations in conjunction with environmental constraints and feedback. This comprises what I wish to suggest as the second manifestation of the will to power—otherwise known as evolution by natural selection.

In this situation, 'trophic levels' are gradually constructed, and ecosystems are created to establish, what I suggested, was akin to a giant 'entropy fan'. I also identified the 'synergy fractal'. This involves, I claimed, a systematic development of ever more complex systems: where quarks allied to become sub-atomic particles, which allied to become atoms, which allied to become elements, which allied to become molecules, which allied to become complex or macro-molecules, which allied to become genes, which allied to become cells, some of which allied to become biofilms and multi-cellular organisms, some of which allied to become groups or social organisms. Each 'jump' or emergent construction tends toward greater power, which in turn suggests greater possibilities for causation in the world. In Part

Three, I will explain how all of the above provides empirical support for Nietzsche's metaphysical theory of the will to power.

As power is fundamental to organisms (since they are themselves expressions of power) and a requirement of their survival, power is, I claim, the foundation of all values and judgements usually instantiated by feelings and emotions, as perceived or anticipated gains or losses in status. The evolving organism cannot evaluate fitness; it can only evaluate power relations (at least not until it has developed sufficient cognitive abilities similar to that of a human). This important distinction is what founds my understanding of the psychology of power relations. In humans, and perhaps other cognitively advanced social species, individuals can meta-represent the status of others and collective groups. Higher cognition such as imagination and reason, helps that organism to evaluate information and to acquire a more objective perspective of what is 'good' for the group. The fundamental function of 'morality' from an evolutionary perspective must continue the life of the genes that inculcate it. 'Morality' binds the group with a series of behaviours that increase the overall power of the group. The 'social organism' thus emerges, as do autocatalytic structures (the basis of an autonomous self), from the thermodynamic 'drive' or 'will' to construct or organise more powerful entities for the 'purpose' of dissipating energy gradients.

One could claim, perhaps, that the most powerful living entity is also the largest dissipater/user of energy per organism, and creator of entropy, 'unconsciously fulfilling nature's purpose'—as Lotka pointed out (see section 1.3). The second manifestation of the will to power (natural selection) is thus not a will to fitness or to continued existence but a continuation of the first manifestation—it is a will to construct more powerful systems where possible. These will of course degrade or use (eat) other forms of free energy (life-forms) as part of this process, thereby establishing the competition and co-operation and environmental feedback that we call evolution by natural selection.

We can see that co-operation, altruism and 'morality' only really come into being when an individual is part of a group—when, that is, individual genes co-operate in the genome, or where cells co-operate in the organism, or where organisms co-operate in the social group. Solitary organisms are entirely selfish, and the 'good' in this respect is purely about the status and fitness of the individual. The jump in power to the group thereby requires co-operation and altruism comprising our 'morality' as a 'glue' to bind the social organism, or group. I highlighted this in the jump from complex molecules to genes or to gene clusters,

and from unicellular organisms to biofilms, and from individual organisms, such as humans, to groups. In the latter case, the jump occurs via feelings of empathy, and a systemised structural abstraction of the group with a collaboration of equal partners, and also a structural hierarchy for cybernetic control of the group. I will return to these ideas in Part Two.

The theory of evolution also predicts that 'cheaters' will parasitise a co-operative group, by taking the advantages without the necessary contributions. As I have argued, this exemplifies morally 'bad' behaviour in accordance with my definition of bad. The immoral organism 'myopically' operates at the previous evolutionary level, at the lower power level. In human societies the immoral behave primarily selfishly with no concern for others or for the group in general. They prize their own status-preservation and enhancement above contributions to the social group or to co-operating with others in society. Essentially, this describes a dichotomy between a selfish perspective and a social perspective. We know that the social part of the brain/mind evolved later, and to some extent inhibits the older, selfish part. However, group perspectives can also be selfish or 'groupish', and thus immoral, such as we see in cases where a group acts for the benefit of the family, or a corporation at the expense of society in its decision to avoid paying taxes in order to increase shareholder premiums. There are therefore various levels in play within a society, and the thermodynamic and evolutionary research demonstrates why morality is there, how it develops, why we should be moral, and what morality is fundamentally based in. It gives us the larger objective perspective or framework in which morality comes to be, and shines some light on the 'inner' psychological motivations and judgements of power relations. I will draw upon my findings in Part One to examine these ideas in greater depth in Part Two. Where I will explore the development of morality from a psychological perspective and evidence will be produced for both an emotional and systemised component to 'moral' decision making, lending support to the 'flow' of the synergy fractal from the selfish individual to the social and onward to form the 'social organism'.

Part Two

Power and Psychology

Chapter 7

Evolutionary, Cognitive and Neuropsychology

This chapter analyses some of the key evolutionary, cognitive and neuropsychological findings related to the nature and dynamics of morality and moral decision making. In doing so, I will examine the role of the emotions and rationality (cognition) in the development of morality.

My analysis of evolution covered key aspects of the development of evolutionary psychology, and a brief recap will help us in our considerations of the contemporary theories of neuroscience in relation to moral decision making. I explained that the central nervous system (CNS) has been evolving ever since, at least, the existence of unicellular organisms, with their 'sensors', such as chemoreceptors and mechanoreceptors. Eventually, representations of smell and taste and feelings (such as hunger, thirst, pain, pleasure) evolved, followed by basic emotions (such as fear, disgust, anger), and these established for the organism, its 'in-built' evaluation and motivation system in order to protect its status and maintain homeostasis. Coupled with developments in memory and improvements to senses (such as sound and vision), the organism gradually increased the amount of information it could process and store from its interactions with the external world. I explained that these more ancient parts of the brain (known as the 'reptilian' brain) were essentially the selfish part of the brain, concerned with satisfying inner 'drives' (such as hunger, lust and thirst).

Social interactions between organisms (such as 'kin selection', sexual selection, and/or functional synergies) developed within them a desire to help and protect their immediate 'nest mates', parents, offspring and siblings, or potential mate. These interrelationships developed, perhaps through more complex feelings of empathy for others, and came to comprise the theoretical groundwork for a grand 'theory of mind', and, by extension, the fundamental beginnings of a moral system, of enabling a person to appreciate that what is 'good' or 'bad' for me, may well also be good or bad for them too. Through greater power an

adaptive advantage was realised, and these kinships, families or co-operators would gradually form social groups. As social groups enlarged, greater cognition and memory develops, to allow individuals or factions within groups to remember who is reliable and who is not, that is to say, to remember conspecifics and interact with them accordingly. Moral strategies, such as 'tit for tat' arrangements would emerge, with stable evolutionary strategies that could deal effectively with 'cheats'.

In this scheme, a rationally strategising part of the brain gradually developed to deal with new problems, such as social status and of behaving in a way that didn't get you ostracised or sanctioned by others. This reasoning part of the brain therefore had to be able to calculate and anticipate possible reactions by others to one's own behaviour and to plan accordingly. This would involve a creative imaginative faculty, as well, in order to maintain one's social status. Sociality thereby gave rise to 'moral' emotions of shame, guilt, embarrassment, as well as more positive emotions linked to social status, such as pride. I thereby argued that our emotions act as 'carrot and stick' to guide our actions within the social world to increase or maintain status, in this case our social power/status—crucially, I claim, in exactly the same way as our base feelings and emotions helped more primitive animals maintain their status.

As the cognitive part of the brain/mind continued to evolve, the meaning or values of the group could be reflected upon in abstract terms, and behaviours could be adapted and censored in accordance with this in recognition that controlled behaviours could benefit the group. Although it is a very simplistic model of the brain, it is useful for us to consider it as comprising 'rational' and 'creative' parts, which work together to formulate the executive decisions a person makes. The rational part can be interpreted as the 'younger' part of our brain, such as the neocortex. The foundations of our moral values, I have argued, lie in our feelings and emotions and are concerned with status (either our own, the status of others or of abstract entities such as the status of a group). These would be modifiable with learning, leading to a 'dual process' involved in our decision making.

7.1. 'Morality' as Expressions or Transfers of Power.

The gradual evolution of brain and mind suggests certain empirically testable predictions. Firstly, that different parts of the brain are used for different functions, and as such, are 'specialised'. Secondly, that 'moral' decisions will involve the integration of both the ancient

emotional part of the mind and the younger, rational part—each providing input to a person's executive decision-making processes. Thirdly, any deficit or non-normal functioning of parts of the brain will lead to non-normal 'moral' decisions and behaviour. Over the last few decades, technology has itself 'evolved' to enable us to test these predictions, and all three have been confirmed. To these experiments and studies I now turn to show the complex interaction between the emotional and rational parts of the mind/brain and how they both contribute to 'moral' decision making.

One of these studies concludes that, '[u]ltimately, our results provide evidence that the neural network underlying moral decisions is probably domain-global and might be dissociable into cognitive and affective sub-systems' (Bzdok, Schilbach, Vogeley, Schneider, Laird, Langner, & Eickhoff, 2012, p 783). This conclusion seems to support the general expectations I explored in my earlier account of evolution. Rationality, and affect (emotion) are all involved in moral decision making but, each aspect is dissociable from one another. This finding complements my general thesis that organisms and their groupings are essentially expressions of power, for it suggests that the whole brain is involved in its preservation or facilitation. In this respect, we can interpret morality having a role in the preservation of status of a person (or even as a display of status if we appeal to the findings I examined in relation to the Zahavi's handicap theory). The 'status' under consideration here would refer to that of the individual or a group such as a family, state or organisation. The fact that an individual can give to charity is a mark of the fact a person has the power to give, whether it is done openly or covertly. The fact that a state has an overseas aid budget is a display of power/status in contrast to the states who rely on it. If we consider the act of giving this aid as the 'moral good', the act itself is a transfer of power from one to the other in line with evolutionary definitions of altruism.

7.2. Sociality and 'Morality' via Empathy.

I wish now to pause and reflect for a moment to consider how evolution would make the jump from a selfish individual to a co-operative, altruistic individual. Corning (1983), Hamilton (1964, 1970, 1971a, 1971b, 1972), Trivers (1971) and other evolutionist thinkers provide an explanation as to why it would be adaptive,⁴⁵ but they do not explain how altruistic motivation

⁴⁵ I am here referring to functional synergies, kin selection, reciprocal altruism and inclusive fitness as well as Wilson's (1980) list of adaptive advantages coming from working in groups mentioned in 6.1 of this thesis.

becomes inculcated in the organism. Given that feelings and basic emotions act as 'carrot and stick' for the selfish organism, the most satisfactory explanation, I contend, is the variations in emotions/feelings that one has toward specific others. For instance, the biological foundations of sympathy/empathy and perhaps kin selection could be developed through actions triggered by the unpleasant feelings you have when you sense your offspring/siblings are suffering in some way. In this respect, emotion/feelings can manipulate you to do the 'right' thing for the proliferation of your genome, as I explained earlier. Further evolution over time can expand this behavioural trait potentially to encompass all persons and other species. So as hunger triggers the 'seeking' system to find food, sympathy/empathy can trigger a seeking system to establish behaviour that alleviates YOUR own discomfort as a fundamental motivation for helping others to alleviate theirs.

A second theory that I mentioned earlier, and which is relevant to my considerations here, is Corning's synergistic theory (1983). This suggests that co-operative behaviours through empathy are instilled later in the evolutionary process, but act as a 'framework' after the animal recognises the utility and greater functional synergy (power) that is achieved as a result of their behaviour with the rewarding emotions generated by the results of the behaviour, such as with the baboons successful hunt mentioned in 6.2. Both theories outlined here support my overall thesis.

The debate between altruists and egoists regarding the motivation for altruism still rages, which side one favours depends in part on one's definition of altruism. The biological definition is less concerned with the fundamental motivation of an action as it is the observed behaviour, while the psychological or philosophical 'altruist', is concerned with the nature of the underlying motivation. Batson, Duncan, Ackerman, Buckley & Birch. tell us,

It is the end-state goal, not the behaviour, that distinguishes an act as altruism ... Motivation for helping may be a mixture of altruism and egoism; it need not be solely or even primarily altruistic to have an altruistic component. Increasing the other's welfare is both necessary and sufficient to attain an altruistic end-state goal. To the degree that helping is altruistically rather than egoistically motivated, increasing the other's welfare is not an intermediate, instrumental response directed toward increasing one's own welfare; it is an end in itself. Although one's own welfare may be increased by altruistically motivated helping (for example it may produce feelings of personal satisfaction or relief) personal gain must be an unintended by-product and not the goal of the behaviour. (Batson et al, 1981, p 291).

Batson et al, conclude that empathic emotion produces 'truly altruistic behaviour'. But the problem with this conclusion is that, by focusing on the emotion in the helper (in this case, their empathy or the emotion of shared feelings with the victim), one does not escape egoism. This is because empathy, by definition, would require the helper/the empathiser to feel miserable if the victim were feeling miserable due to some misfortune, and out of this shared misery, the helper is therefore motivated to help. As long as one allows emotion to factor into the motivation behind an act, an act will always have an egoistic grounding, even in acts that are supposedly altruistic. Batson et al. take on a purely behaviourist approach admitting that 'we cannot directly observe motivation, only behaviour' (Ibid). But it is precisely the motivation, I claim, which is at issue.

The evolutionary jump from a selfish organism to altruistic is a theoretical problem that may find resolution in the hymenoptera to some extent, but it remains unresolved in our understanding of human evolution. The problem put succinctly is this: at the beginning of the evolution of altruism, what motivates organism A to help organism B? If we try to define empathy as an emotion aimed at the end-state of B, then what kind of emotion is required to motivate this? If it is pleasurable, then A will associate pleasure with the suffering, and will consequently have no reason to help B. If A somehow can imagine or reason its way to understanding the fact that B requires X, and that X will make B feel better, then A has acquired a giant leap of cognition to the extent that the empathy achieved—in engaging with the experience of 'feeling better' or of pleasure—will act as an egoistic 'carrot'. Its motivating factor must, rather, be an aversive emotion with a corresponding pleasurable emotion that is felt after the act of helping has been performed. Cialdini, Schaller, Houlihan, Arps, Fultz & Beaman (1987), also reinterpret the study of Batson et al. to demonstrate that sadness or sorrow is the key motivating factor here, and they carried out their own empirical study to support their claims.

Interestingly, Eisenberg and Miller (1987) carried out a meta-analysis of studies that sought to relate empathy/sympathy to prosocial behaviour. They concluded that,

most indices of empathy were positively and significantly related to measures (however inadequate) of prosocial or altruistic behaviour. Thus, contrary to the conclusions of some prior reviews, the empirical data do provide support for the theoretical assertion that empathy is related to some forms of prosocial behaviour. (Ibid, p 115).

They use the definition of empathy as ‘an affective state that stems from the apprehension of another’s emotional state or condition, and that is congruent with it’ (Ibid, p 91). They also employ the term empathy to include sympathy, as the studies they examined did not always make a distinction between the two. For our purposes, I wish to claim that we can be fairly confident that empathy/sympathy are the ‘stick’ emotions necessary to motivate altruistic, co-operative behaviours, and, subsequently, they are the evolutionary link from the selfish animal to the altruistic social animal.

Bzdok et al tell us, ‘theoretical accounts as well as empirical evidence suggest that ToM, [theory of mind], ... and empathy are partially overlapping psychological constructs’. They also tell us that ‘ToM and empathic skills precede mature moral reflection in primate evolution’ (2012, p 784). This conclusion complements our evolutionary understanding of how our brains developed.

7.3. A Dual Process in ‘Moral’ Decision Making.

The affective/cognitive ‘dual process’ alluded to above is advocated most prominently in the writings and research of Joshua Greene (2014), and his camera analogy with its dual settings— ‘automatic’ combined with ‘manual’—is particularly useful for me to illustrate my argument here. Thus, we can view the ‘automatic’ settings as programmable either by countless years of evolution or by cultural learning—for instance, our aversion to incest, (use of the disgust emotion or feeling), —or our parents and governments teaching us about safe ways to cross the street (use of the fear emotion or feeling). Or by individual trial and error—such as learning not to touch potentially hot objects, (use of pain feeling). Our trial and error will also teach us through social conditioning about socially unacceptable practices by triggering feelings of shame, embarrassment or guilt, in the same way. These emotions will also have evolved as ‘stick’ due to their associations with a perceived loss of social status, and pride or joy as ‘carrot’ in a perceived gain in social status—and this will include of course ‘moral’ actions. By recognising the emotional reactions of others as ‘signals’,⁴⁶ we can ascertain whether our behaviour was acceptable or not, and whether our status has enhanced or diminished accordingly, and this will then furnish us with the relevant emotional ‘stick’ or ‘carrot’, such as shame or joy.

⁴⁶ See Frank (1988) for emotions as signals as well as motivators.

In this discussion I have exposed an important point to bring to bear on my theory of morality, and that is while ‘bad’ (or ‘good’) feelings are concerned with status, they are not always concerned with morality. Let me give an example. Let us consider a member of a national football team whose poor performance contributed to his team’s loss, perhaps he missed the vital penalty in a world cup final. As a result of this he feels great shame. In this situation, the player perceives his social status to have diminished; shame here is therefore the natural ‘stick’ emotion. Similarly, supporters of the national team feel widespread disappointment, and their status is felt to have diminished in comparison to the winning team/nation, who by contrast, experience positive ‘carrot’ emotions of pride and joy. Although memories of unpleasant feelings/emotions remind us not to repeat the behaviour that gave rise to them, and, by the same token, pleasant feelings/emotions remind us to repeat the behaviour that triggered them, nothing *immoral* or *moral* has transpired in the case of the football match. Morality, I contend, is a particular subset of the power/status relational paradigm; it does not cover every instance of power-status relations.

We can contrast this scenario with one whereby that same player missing that same penalty intentionally for monetary gain from ‘match fixing’. Although, generally speaking, the change in status of both sets of fans would be the same as in the first scenario, ‘immorality’ is apparent in this second scenario, and it comes from the function or role of the player and the social norms associated with his behaviour, which is to say, from one’s ‘duty’ to maintain or enhance the status of the larger group or social organism to which you belong. This player benefits in status (monetary gain) at the loss in status of others in his group, and this behaviour is considered ‘bad’ from my earlier findings. Immorality arises due to the player’s intention to play poorly, as such, he abuses the power implicit in the role for selfish gain. He behaves in similar fashion to a cheating cell or ultra-selfish gene, in so far as he does not perform his functional role for the benefit of his group, but only for himself.

The importance of emotion in moral decision making has been convincingly argued for by Jonathon Haidt (2001),⁴⁷ who provides a wealth of supporting evidence in studies that demonstrate how people tend to rely on ‘gut feelings’ to make moral decisions and who

⁴⁷ It is perhaps surprising, following my findings in my analysis of evolutionary theories that I consider it important to argue for the emotional foundations of morality. After all, such arguments are already implied within my analysis of evolutionary theory. However, for centuries, morality had been discussed by philosophers as a rational phenomenon. David Hume (1739) and Friedrich Nietzsche (see Part Three) are perhaps the most notable exceptions to this.

subsequently fail to adequately rationalise the decisions they made, sometimes being ‘dumbfounded’ by them. Haidt’s overview of finds align with Greene’s theory of ‘automatic settings’, which I considered earlier in this chapter.

If we consider Greene’s research in more detail, we can see how and where these dual affective/cognitive processes work. One important study conducted by Greene used functional magnetic resonance imaging (fMRI) to measure the responses of participants, who were otherwise engaged in an exercise of trying to solve the ‘trolley problems’,⁴⁸ often considered by philosophers as moral dilemmas. The first of these problems describes a runaway trolley (streetcar/tram) heading towards a group of five people, who are unaware of it. You are aware of it, but you have no time to warn them. However, you are next to a lever that could divert the trolley onto a second track, which would keep the five people out of harm’s way, but would inevitably kill one person who is on the second track. Most of the participants in Greene’s study agreed it was a morally good decision to pull the lever, and thereby kill the one person to save the lives of five others. This, in principle, involves them making a utilitarian choice. In the second moral dilemma, you are on a footbridge above the track accompanied by a large person. This time, you are able to stop the trolley from killing five people only if you were to push the person next to you off the footbridge on to the track below. Again, if you were to do so, you would kill the one person to save the lives of five. In this second case, participants generally agreed that it was immoral to kill that person. Greene concludes from the results that the crucial difference between the two cases involved differences in cognitive processing. Greene refers to the first case as involving an ‘impersonal’ condition, whereby the participants did not employ emotional processing in their assessment of what they should do. Instead they used a simple mathematical heuristic, which is to say, they decided simply on the basis that five lives are preferable to one. The second scenario, however, was more ‘personal’ and therefore engaged the emotional part of the brain. Greene also predicted that those who decided it was morally good to push the person off the bridge would take longer to make the decision, as they would have to overcome ‘emotional interference’. The prediction was verified in the study.

I suggest that this simple study demonstrates the ‘clash’ of automatic settings we have developed. In the first, impersonal case, a simple and ‘quick’ mathematical heuristic is used—this is perhaps a ‘setting’ of our unconscious ‘systematised’ rational mind. In the

⁴⁸ See Jarvis-Thomson, (1976).

second, 'personal' case, our aversive emotional setting influences our 'quick' answer, and for those who managed to override the emotional setting, they had to do so by a process of conscious rational thought (manual mode), which took longer.

Another useful study by Greene, Nystrom, Darley & Cohen (2004), explored the moral conflict generated by the emotional and, what he called, the 'cognitive' parts of the brain. Greene and his colleagues proposed and provided supporting evidence for the theory that

the tension between the utilitarian and deontological perspectives in moral philosophy reflects a more fundamental tension arising from the structure of the human brain. The social-emotional responses that we've inherited from our primate ancestors (due presumably, to some adaptive advantage they conferred), shaped and refined by culture bound experience, undergird the absolute prohibitions that are central to deontology. In contrast, the "moral calculus" that defines utilitarianism is made possible by more recently evolved structures in the frontal lobes that support abstract thinking and high level cognitive control. (Ibid, p 398).

They also suspected from their results that 'all action, whether driven by 'cognitive' judgment or not, must have some affective basis' (Ibid, p 397). Again, their findings suggest that the younger, 'cognitive' part of our brain—in conjunction with our conscious rationalising—serves to override older emotional aspects of our brain. Put another way, the participants' abstract concern for the 'greater' group (the five people threatened by the trolley) conflicted with their concerns for the individual.

This 'competition' between the emotional and rational parts of the brain is probably too simplistic an approach to fully account for the intricacies of moral decision making. Indeed, Jorge Moll and Jay Schulkin (2009), for example, provide evidence in a later study for a far more integrative relationship between the emotional and the rational, to conclude that, 'basic neurohumoral mechanisms are fundamental to moral judgment and sentiments, which can be better explained by integration of specific cognitive-emotional processes than by competition between cognition and emotion' (Ibid, p 463).⁴⁹ Their paper seeks to explain how the 'higher' cognitive faculties integrate with the emotional faculties to provide 'the key motivators of prosocial behaviours observed in the sophisticated sphere of human

⁴⁹ This would follow even from our simplistic selfish/ social brain dichotomy, as even the selfish brain has to take into account social relations, and an understanding of social conventions and norms in order to maintain its social status.

behaviours' (Ibid, p 460). Their findings provide support for the view that the emotions act as 'carrot and stick' not just at the primitive level but also at the altruistic and social level. In other words, as I wish to claim, the sole purpose of the emotions is the maintenance of power/status. Emotions, therefore, could be in competition and therefore appear 'mixed', such as in the joy of winning a battle or war yet 'standing shoulder to shoulder' with the sorrow of losing so many of one's friends or comrades.

7.4. The Status Preserving and Enhancing Function of Emotions.

The idea of emotions being 'solely' about power or status may seem controversial, and so to illuminate it, I will provide a listing of some common emotions and explain their accompanying status relational function(s).⁵⁰

ANGER

Anger is associated with frustration of goals at a basic individual level, such as obtaining food, access to territory and sexual partners. Anger is concerned with maintenance and improvement of one's individual power/status. When goals are frustrated, anger is employed as a 'stick' to encourage behaviour that may bring about the desired goal; in this case, the behaviour is usually aggression. Anger could also be triggered by frustration related to values at the social level, such as witnessing injustice. A reduction in the power/status of the meta-represented group, such as a violation of the group's beliefs or rules/laws, will likely lead to anger, as it will also reduce the power/status of the individual who identifies with that group; it will lead then to a reduction in the functional synergy. A person may well get angry at the burning of a national flag or a religious text to which they identify, compared to a flag or text to which they are indifferent. Other examples could be insults to one's family or region. Aggression and 'social action' can be interpreted as 'approaching' behaviours, employed by someone to try to regain or improve one's status.

Anger can also be triggered via an empathetic reaction to seeing a reduction in status such as exploitation or harming of another. In this case, a person meta-represents the feelings of the victim while also integrating social values, such as equality. The anger acts as 'stick' to help restore that status. Another example would be the frustration one feels when one fails to achieve self-imposed goals or of managing to live up to one's idealised self-image. In this

⁵⁰ See Frank (1988), for his thesis of emotions not only as motivators but signals of intent which encourage others to co-operate with you thus enhancing social status through reputation.

instance, there is an experience of a loss in status when one compares the status one would have with one's idealised self. This could lead one to adopt specific behaviours designed to regain status.

FEAR

Fear is associated with aversive behaviours intended to protect one's power/status at all levels. At the individual level, fear of snakes, spiders, and heights helps the person to stay away from potentially dangerous situations. Also, responses of fear can be learnt at a social level to help a person to avoid bullies, thieves, and so on. Overcoming one's fears is important for situations that require 'courage', or situations that make one 'nervous'. One may feel nervous at the potential loss of status/power, such as on the battlefield or, as we saw in an earlier illustration, when one is about to take the vital penalty in a football world cup final. The jump from individual to group in this case would put a premium on the capacity to overcome individual fears for the greater 'good' (power/status) of the group. In this case, courage (overcoming one's fear) is regarded as a virtue. One can also be fearful/nervous of a loss in the meta-represented status of the group, which is a common response when one's national football team plays. The English football fan does not get as nervous or 'excited' watching Germany play Brazil as they do when England play Germany or Brazil. This would also be the case for any possible loss/gain in status of a group to which an individual identifies.

JOY

Joy is associated with the accomplishment of goals or in the witnessing of social values that are upheld. Joy will be present where power/status is improved or maintained. Winning a tennis match against a perceived superior player or obtaining a promotion at work, or winning the lottery, are all examples of joy. Joy is the 'carrot' that motivates and rewards behaviour towards an improvement of status. Joy is achieved when one empathises with the increase in power/status of another person, who has, for instance, overcome their afflictions. Joy is experienced at the social level by a rise in status of the group to which one identifies, such as witnessing your national team win the world cup, or winning the company contract which keeps you in work or elevates your standing in your workplace.

DISGUST

Disgust is associated with aversive behaviours by the individual to maintain physical status by avoiding, for instance, hazardous foods or environments which, at a chemical level,

cause negative reactions to the perception of tastes and smells. Disgust is associated with ideas of contamination and purity. We also speak of our disgust at certain actions and groups, such as the behaviours of Neo-Nazis, whose political views we see as disgusting. Interestingly, it is a perceived disgust of supposed 'inferior' races or peoples, which drive ideas of racial purity in Nazism in the first place (as well as fear of contamination of their nation). Thus, disgust works for the social group in a similar way to the individual. It has played an influential role in 'moral' thinking at all levels of evolution and seems to be easily modifiable by learning. For example, a person who was raised as a meat eater might change their views to find eating meat disgusting after being disgusted or upset at the treatment of certain farm animals.

Disgust acts at the individual 'base' level to maintain health, at the group level one's 'in-group' such as a tribe would be in potential conflict with other groups over food, territory, etc. Disgust at the 'other' helps to maintain the functional synergy and status of the 'in-group' by having no empathy with the 'other' thus making it possible to perform behaviours that would be unacceptable in the synergistic group such as fighting or killing. This helps to maintain the status of the 'in-group'. At an advanced evolutionary stage, where the cerebral level has developed further still, disgust can be equated with political views or other opinions and behaviours. Someone who throws litter onto the streets, for instance, would be regarded as contaminating the environment, which in turn, could lead to a perceived degradation and reduction in status of the town/nation, and, by association, a lowering of status of all those who live there.⁵¹ In recent times, disgust at the plastic contamination of the oceans, which detrimentally affects sea life and our environment on a global level, and also affects the power status of humanity because it is they who ultimately have to live in their contaminated environment, on the 'rubbish tip' that many attribute to humans. This, in conjunction with our empathised meta-representation of what it must be like for the creatures who live in the oceans, leads to feelings of disgust at ourselves for contributing to the contaminated environment, and this feeling of disgust will act as 'stick' to encourage us to change our behaviours. Disgust therefore acts as a rejection of certain potential influences or influencers again relating it back to power relations.

⁵¹ See Jones (2007) for a broader discussion on disgust in moral psychology.

SYMPATHY/EMPATHY/PITY/COMPASSION

Although there may well be some conceptual differences between these feelings, I have grouped them together as having the same emotional 'essence'. We mentioned these emotions earlier, in terms of their possible key involvement, as the 'evolutionary gateway' in the development of 'altruism', and in turn, 'morality'. Being able to 'feel' what another needs or is experiencing is a 'stick' that motivates a person's helping behaviour. This emotion therefore motivates you to use your power/status in service of another person. Once you have helped the other person, the 'reward' or 'carrot' for your expression of power and its resultant raising of another's status is a pleasurable 'warm glow' of pride. Psychologists call this warm glow 'elevation', and it can be triggered simply by hearing about acts of compassion, etc (Goleman, 2007, p 52). Sympathy without power to help may well lead to anger, as one's ability to satiate the feeling is frustrated. The philosopher Robert Solomon tells us:

Pity can also be used as an offense to place someone in an inferior position: 'I pity you' can be a powerful insult, much stronger than the condemnation of anger, implying that you are at least an inferior human if not subhuman and depraved. (Solomon, 1993, p 281).

This clearly links these feelings to power/status factors.

ENVY/JEALOUSY

These two emotions are related but there are clear differences depending on one's power status. To summarise Solomon's account, one is jealous of one's equals with whom one competes, but envious of one's superiors with whom one cannot compete. Envy comes from an in-built evaluation of inferiority: 'it is an emotion of marked impotence and inferiority' (Ibid, p 248). Solomon also says: 'it is usually a harmless passion, except to oneself' (Ibid). Thus, if we try to put envy and jealousy into an evolutionary perspective, they appear as the motivational 'stick' pushing one to succeed to become or obtain what one covets; they are akin to a drive for superiority or equality with those of higher perceived status.

We also learnt from my analysis of evolution how jealousy in males manifested in behaviour that seeks to control female sexual activity so as to avoid cuckoldry. This behaviour accords with Solomon's account, as the successfully mating male has competed and won; if jealousy is apparent here, it is in the desire to maintain status and that exclusive access to

the mate, thereby conferring a kind of 'property right' in the mind of the male. So, both envy and jealousy are emotions geared to status and its improvement and maintenance.

RESENTMENT

Closely related to envy, resentment is often established when one is entirely powerless to change one's situation. If envy is the 'stick' that drives us to try to succeed, resentment is the realisation that the situation is futile. A 'downtrodden' or reviled person or race which is unable to increase their status will often become resentful, and this may well lead to other outlets or opportunities for resentment and yearn for improbable elevations of status. Resentment may well lead to anger and violence in an attempt to re-establish status, and if this desperate attempt fails or is implausible, then to sadness and depression.

SHAME/GUILT/EMBARRASSMENT

Although these have often been considered as separate emotions, they are largely regarded as being in the same 'family' of emotional responses concerning social adaptations and our need to belong to the group—and therefore as having similar roles in the maintenance of social status.⁵² Shame is the most intense of these three emotions, and is thought to occur at the level of self, and is most indicative of a perceived loss in social status of the individual. As Tangney et al state: 'When feeling shame, [these] young adults felt more isolated, diminished, and inferior to others' (Tangney et al, 1996, p 1265). With regards to my power/status theory—with emotions interpreted in it as having the key role of 'carrot or stick', required to encourage behaviours that increase or maintain status—guilt is thereby interpreted as an emotion that will motivate reparational behaviour and an attempt to regain one's status. Generally, it is thought that guilty feelings are focused on a person's behaviour, while feelings of shame focus on a person's perception of 'self'. Embarrassment is the least intense emotion of the three, as it is associated only with losses in social status that are regarded as relatively minor.

PRIDE

Pride is associated with pleasure. Pride is our reward or 'carrot' feeling, for a significant achievement of increased or maintained status/power. Pride is often distinguished between 'authentic' and 'hubristic' pride. In this respect, Jessica Tracy and Richard Robins suggest that 'authentic pride might motivate behaviours geared toward the long-term attainment and

⁵² See Tangney, Miller, Flicker & Barlow, (1996) for a fuller discussion of the differences.

maintenance of status, whereas hubristic pride might be a 'short-cut' solution, proving status that is more immediate but fleeting' (Tracy & Robins, 2007, p 523).

Perhaps 'hubristic' pride reflects our ancient, more selfish instinctual needs, while 'authentic' pride, by contrast is more associated with our social development. One can feel proud if one achieves one's self-driven goals. One can feel proud if one's social status is highly esteemed in the eyes of others. In a competitive world, pride is the feeling of superiority, and it is evolutionarily driven, as I have shown, to ensure we can perpetuate our genome. In males, pride may well differ in its chosen objects, in comparison to females—as I demonstrated in Chapter Five on sexual selection, the basis of male and female power are different.

Importantly, Solomon makes a distinction between pride and self-esteem, noting that pride has an objective nature, in so far as it concerns what others think of us, while self-esteem, by contrast, has a subjective nature, in so far as it concerns what we think of ourselves: 'Ideally, pride and self-esteem complement each other, pride esteeming our objective achievements, honors and status, with the support of subjective self-esteem' (Solomon, 1993, p 285).

A person can have low self-esteem but still feel proud of themselves or high self-esteem whilst not feeling proud of themselves. Shame is often considered to be the opposite of pride. Solomon remarks, 'Pride does not deserve to be a 'deadly sin' much less the first on the list' (Ibid, p 284). But I think that pride, at least the hubristic, will have a central role to play in considerations of the nature of 'evil' and the causes of evil. Pride is a feeling of superiority, an elevation in power and influence, as such it necessitates outward evaluations of inferiority among others. This will precipitate associated behaviours, whether they be consciously or unconsciously recognised. I will present and analyse further evidence for the relationship between pride and its associated behaviour in Chapter Eleven on social psychology. It is clear that pride involves power/status.

DEPRESSION

All the factors contributing to depression may well be varied and complex, but I would argue that they will always in some way relate back to status, whether it be personal 'selfish' goals which have not been achieved or lost, or alternatively our 'social' status having been diminished leading to depression, such as the occasion of being ostracised or estranged

from others. There is ample evidence for this behaviour in Johann Hari's (2018) research into depression. For example, when quoting the work of Michael Marmot (a researcher into the causes of depression) he notes, 'Disempowerment ... is at the heart of poor health... physical, mental and emotional' (Ibid, p 69).⁵³ Depression as a form of 'disempowerment' clearly exemplifies the core arguments of my thesis, and I will continue to expound on the links between power and depression in Chapter Eleven on social psychology.

GRATITUDE

Gratitude is one of the social and moral emotions, for it strengthens social bonds, by improving or maintaining a person's status. Gratitude is an emotion that can thus help maintain the greater power of the group. It encourages altruism both in the giver and the receiver. Being a recipient of generosity and empowerment leads to a feeling of gratitude and this state can, in turn, lead to more generosity. Thus, gratitude, felt and signalled in 'thank yous' or smiles of appreciation, can increase the chances of further group co-operation (See Keltner, Oatley, Jenkins, 2014, pp 220-221).

I have attempted to explain how emotions are intrinsically linked to evaluations of power/status, either in individuals or groups. In the next chapter I will analyse emotions in general terms, to explain how they are adaptive—as inciting the 'carrot and stick' effects—and to examine how they may lead to other effects within the context of cognitive psychology. It is also worth noting, as Solomon did, that the emotions feature heavily in our ideas of 'sin' and evil, and associated ideas of lust, avarice (material greed), wrath (extreme anger), gluttony, vanity, envy and pride. The first four encapsulate, I claim, extreme parts of our most basic needs and 'animal' drives. Vanity we can equate to some extent with self-esteem, and the last two relate more to objective criteria, such as envy (or what we can't have that others have), and pride (with its feelings of specialness and superiority or respect amongst our community). I will now turn to other aspects of mind to show how they too integrate with emotions to help maintain power and status.

⁵³ Hari draws from many of Marmot's papers linking depression to social status, disempowerment, etc a full list is available in the notes on p 280.

Chapter 8

Emotional Effects on Memory and Attention

Having argued that emotions and feelings are manifestations of power and status evaluations and motivators of behaviour, I will now show how they necessarily integrate with two other cognitive domains to maintain and enhance status. If emotions seek to maintain status and indirectly our continued existence then we would predict a very close link with memory and attention to the extent that emotional episodes affect our memories and the attention we give to specific situations in the present. The significance of this process within the evolutionary development of organisms is obvious; a situation that almost ended in death or injury for an organism will be avoided in the future and the fear that had arisen in the original situation would be the aversive feeling that acts as the signal emotion or 'stick' to be wary of when the organism finds itself in a similar situation. Likewise, if a similar situation is encountered, attention needs to be placed in the geographical locations where the danger is most likely to arise. Thus, the whole brain/mind is engaged in the maintenance or improvement of status.

8.1. Memory.

Gordon Bower (1981) differentiates between mood congruent memory, and mood dependent memory, and he goes on to argue that memory recall is enhanced if the emotions present during a recollection of an event are the same emotions when present at the time the memory was encoded. This finding complements my evolutionary argument. For instance, if a gazelle encounters a lion at a watering hole and narrowly escapes with its life, but later returns to the hole, it will need to remember where, exactly the lion came from, from which direction, and also perhaps what it did to escape the lion. Memories of these details from the original occasion will return to the gazelle when emotions of fear are triggered as and when it approaches the watering hole. If it is found that the gazelle cannot retrieve memories of this kind or detail due its own cognitive limitations, it will undoubtedly have the capacity for emotional priming—a kind of emotional memory of the previous incident. A behaviourist might say that the original experience has 'conditioned' subsequent behaviour. Bower also demonstrates that if a person is currently happy, they tend to remember happier events (mood congruent), and by the same token, unhappy events if they feel sad—and this, once more, highlights a clear link between emotion and memory. Conditioning, after all, is

the simple application of the proverbial ‘carrot and stick’ to shape behaviour. In the context of fear conditioning, Joseph Le Doux asserts, ‘Not only is fear conditioning quick, it is also very long lasting. In fact, there is little forgetting when it comes to conditioned fear’ (Le Doux, 1999, p 145).

Perhaps the clearest evidence that demonstrates the intricate connection between emotion, memory, and attention is the occurrence of ‘flashbulb’ memories, or Post Traumatic Stress Syndrome (PTSD). ‘Flashbulb’ memories are memories of a particularly poignant occasion such as those reported by news or media, which so shocks us at the time that the occasion is ‘burned’ into our memory, causing us to remember where you were and who you were with when you heard the news report. The attack on the twin towers in New York in September 2001, or the assassination of President Kennedy in November 1963 are cases in point. In PTSD, past traumatic events can intrude directly into the present, due to associated ‘triggers’ in the environment which recall to the observer the emotion and memories of a prior incident, such as, for example a loud noise recalling to mind an earlier experience of gun warfare.⁵⁴

Humans have a basic ‘emotional’ memory—a fact that perhaps reflects the idea that the ancient human brain is essentially the same as the reptilian brain. Le Doux (1999) outlines the case of a female patient of the neurologist, Édouard Claparede, who was unable to form any new memories. Every time she went for an appointment with Claparede, she could not remember ever meeting him. To her the meeting was always the first meeting. Even if she left the consulting room for a few minutes, she would return and would not remember him. Claparede decided to include an intervention at the start of each meeting. Normally they greeted each other with a handshake, but he decided on one occasion to conceal a pin in his hand, so that the patient would experience a stab of pain when they shook hands. He then left the room, and upon his return he held out his hand to greet her, but she refused to shake it. Interestingly, she could not say why she refused. Le Doux explains that ‘Claparede had come to signify danger’ for her, ‘he had become a stimulus with a specific emotional meaning’ (Le Doux, 1999, pp 180-181). In other words, her emotional system had initiated a ‘stick’ to warn her to avoid a specific behaviour, which worked despite the fact that her conscious self, could not reason how or why it had done so or what it meant. This case highlights very nicely Antonio Damasio’s hypothesis of a ‘somatic marker’ – a theory that I

⁵⁴ See Brewin & Holmes (2003) for a review of classic symptoms and theories regarding PTSD.

will now examine, this will provide groundwork for my later analysis of potential disorders of the brain, and the impact this has on moral decision-making processes.

8.2. The ‘Somatic Marker’ Hypothesis.

Damasio’s ‘somatic marker’ hypothesis (1996)⁵⁵ is to some extent intuitive and well supported by empirical studies. Simply put, it asserts that experiences have an evaluative (emotional) element and will be influential and important in our decision making. This element constitutes a ‘marker’ in the original event that is remembered, so that when a similar event occurs, the organism will associate it with the original occasion via its sensory apparatus. The emotional ‘marker’ from the original event will signal or trigger a similar emotion and behaviour in the current event, leading the organism to proceed accordingly, such as aversive or approaching behaviour.

Damasio suggests that this procedure occurs also in humans, but in this case, there are greater potentials for the emotional marker to find its attachment, due to the higher levels of cognition of humans. Importantly, Damasio argues that the ventromedial prefrontal cortex (vmPFC) is the part of the brain which is instrumental in bringing both the emotional marker and the other aspects of the learned encounter together. He asserts, ‘The ventromedial sector would hold linkages between the facts that compose a given situation, and the emotion previously paired with it in an individual’s contingent experience’ (Damasio, Everitt, & Bishop, 1996, p 1414).

Let me explore this hypothesis with an illustration. Imagine, if you will, that you meet a person for the first time at a dinner party. Throughout the evening, this person continually snipes at you by criticising your physical appearance, and by making sure you know they have a more important job than you—in effect, they seek to impress upon you that you have a lower status than them. This experience impacts on you by establishing for you an aversive emotional marker, so that when you come across that person again, you will experience an emotional reaction, possibly unconsciously, which will suggest to you that you would not like to spend time in their company. In this scenario your emotional ‘stick’ is working by guiding you away from status-reducing encounters and environments. On the other hand, if that dinner party guest enhanced your perception of status by telling you how

⁵⁵ Also see Damasio, Tranel & Damasio (1991).

lovely you looked, how impressed they are at your job (along the lines of asking you, for instance, ‘wherever did you get that shirt? I really must get one’), an emotional marker of ‘pride’ will be established in relation to your experience of the guest, so that, should you meet that person again, the encounter would trigger pleasant feelings and emotions—this marker thereby establishes a ‘carrot’ for you, encouraging you to engage with status-increasing environments.

Damasio also reports on the importance of this affective linkage to our future decision making. He writes:

I propose that the ventromedial prefrontal cortex establishes a simple linkage, a memory in fact, between the disposition for a certain aspect of a situation (for instance, the long term outcome for a type of response option), and the disposition for the type of emotion that in past experience has been associated with the situation (Ibid, p. 1415).

This suggests that, even when we are envisaging future behaviour or plans using the creative rationalising part of our brains, our affective input is necessary to help us decide which outcomes to select. This, Damasio tells us, can include a conscious emotional state or an unconscious emotional state; if it is unconscious, it is by way of a ‘non-specific neurotransmitter system such as dopamine, the device influences cognitive processing’ (Ibid).

The conscious emotional state can be easily activated. For example, imagine if you will, that you are honoured by your peers in a field of work which appeals to you—if you are an academic, you might imagine yourself receiving the Nobel prize in front of an adoring and respectful audience; if you are a sportsperson, you might imagine yourself winning the football world cup or an Olympic gold medal. The pleasant tingling bodily sensation that such occasions will activate may be experienced as a wave-like effect lasting a few seconds, very similar to the coronal effects of an orgasm. Obviously, this sensation is linked to pride and is the ‘carrot’ that leads a person towards behaviour that is socially acceptable and status-enhancing for them. Interestingly, I have not come across a name or term for this particular feeling/emotion in my extensive consultation of studies of emotion or feelings, and so in absence of its proper name, I will simply call this feeling a ‘prigasm’ (as in ‘pride’ + ‘orgasm’: to experience a physical wave of prideful delight). Prigasms will be triggered in any situation where one envisions or experiences oneself in a favourable light from a perceived

authority source, whether it be the respect of a boss, a king, a crowd or even a meta-represented entity like God. I might well 'prigasm' if I envision my behaviour as favourable to God, leading me to continued behaviour of the kind that triggered it.

Damasio continues to assert:

[T]he images of the scenario are 'judged' and marked by the juxtaposed images of the somatic state. When this process is overt, the somatic state operates as an alarm signal or an incentive signal. The somatic state is alerting you to the goodness and badness of a certain option-outcome pair. (Ibid).

As I have argued, goodness and badness are judgements of power/status relations, and in this chapter, I am asserting that emotions are triggered in the visualisation of possible future events. I wish to claim that there is an evolutionary trend toward working together—a trend that underpins the 'synergy fractal' or, we might say, the emotional 'carrot and stick' effects of the 'planning department'. This informs a person's conscious creativity of future events,⁵⁶ as a guide toward future behaviour in a social world. The work of Tangney, et al, (1996), supports Damasio's somatic marker hypothesis, and to some extent, an understanding of the pervasive function of emotions in general, through their attempt to distinguish between the emotions of shame, guilt and embarrassment. They assert, for instance:

On those rare occasions when embarrassment occurred without anyone else present, it invariably involved a vivid imaginary audience that had the embarrassed actor envisioning what others would think if they knew what the actor had done (Ibid, p 1266).

Their studies thereby suggest how emotions provide guidance toward status-enhancing behaviours and environments and direct us away from status-reducing behaviours and environments.

A useful analogy to help us to understand emotional function as an evaluation system might be to think about how one learns to play chess. Usually, we are taught the basic rules of the game, how the pieces move and the objective of the game to 'checkmate' the king. We are taught that the king is 'priceless' and when we start to play, we understand very quickly that our pawns are not worth as much as other pieces because of their range of movement. But

⁵⁶ 'Planning department' is a phrase from Damasio. (2012) p 271.

we are not taught how many pawns a knight or a bishop is worth, or whether a bishop should be exchanged for a rook or knight. We play, but without this knowledge we will inevitably lose games to opponents, who have a deeper or more accurate evaluation system that they readily apply in their play. As one progresses in chess, one reads or is taught the basic evaluation system of queen=9.5 pawns, rook=5, knight or bishop=3, *ceteris paribus*. As one's knowledge and experience of chess increases, one makes better moves (which are more likely to lead to victory). Decisions regarding the future play of the game and its variables are based on this simple evaluation system.

Emotions are our evaluation system in the 'game of life', and they comprise evaluations of status, and without them, future decision making may well be difficult, if not impossible. Without an evaluation system, decision-making would comprise a virtually random choice based on nothing of any substance. Thus, Damasio suggests:

In the absence of a somatic marker, options and outcomes become virtually equalised and the process of choosing will depend entirely on logic operations over many option-outcome pairs. The strategy is necessarily slower and may fail to take into account previous experience. (Damasio et al, 1996, p 1415).

Damasio's hypothesis developed alongside his working with patients with a damaged vmPFC, whose decision-making was often 'slow and error-prone' (Ibid). He hypothesised that they did not have the evaluation system necessary to choose between outcomes. Whilst they may remember certain events and people, there is no affective content to the memory. Thus, if we return to my example of an abusive dinner guest, these patients who encountered such a guest, would fail to trigger aversive behaviour in their future encounters with the guest. Contrast this with the example of Clapereau's patient and his intervention of the 'pin handshake'. This patient had the aversive somatic marker or emotional input but without the memories of the people or situation. The somatic marker/emotional input and memories have to come together through the vmPFC for a normal decision-making process to work.

Human social life is a continual milieu of interactions constantly being evaluated in light of past emotional evaluations, in addition to the creation of new somatic markers in our encounters of novel stimuli, such as meeting a person for the first time. These evaluations will be related to status, right down to the most trivial aspects of life. For example, how often

have we been frustrated by objects that fail to perform their intended functions? We feel frustration and anger, and we decide in future not to buy that particular model or brand of object again (aversive). One's frustration at the object is caused by our experience of our power or status having been reduced. For example, a phone charger not working will restrict your ability to communicate with the world; a can opener not working restricts your power over the can, and your subsequent ability to feed oneself with its contents. The fact that these emotional evaluations apply to all aspects of our life, including the most trivial, lend support to the overall thesis of the 'will to power' having a basis in natural science—with pleasure, pain, feelings and emotions guiding us always toward the enhancement or maintenance of status, and away from a reduction of our status.

Given that a reduction in status for an organism is potentially disastrous for it from an evolutionarily perspective, we may expect there to be a cognitive bias towards the avoidance of loss of status, compared to an increase in status in decision making. This would effectively entail an extension of Dawkins' life/dinner principle (2006, p 250). This principle is illustrated by the rabbit who runs for its life, away from a fox who targets it for its dinner. A temporary loss of status for a rabbit—such as a thorn in a paw—is a much bigger problem for the rabbit than it is for the fox. Therefore, the rabbit's decision to avoid thorny areas would be in its adaptive interests.⁵⁷

Damasio's vmPFC patients did not have this evaluative system—and this system is operable right down to the most trivial aspects of life. They consequently had tremendous difficulties with planning activities in their lives. According to Damasio,

Before the onset of brain damage the patients may be described as intelligent, creative and successful; but after damage occurs the patients develop a pattern of abnormal decision making which is most notable in personal and social matters. Specifically, patients have difficulty planning their work day; difficulty planning their future over immediate, medium and long ranges and difficulty choosing suitable friends, partners and activities. The plans they organize, the persons they elect to join, or the activities they undertake often lead to financial losses, losses in social standing and losses to family and friends. (Damasio et al, 1996, p 1413).

⁵⁷ See Kahneman, (2011), chapter 26, particularly pp 283-285, for evidence of this bias in humans.

Here we find, once again, that the function of the emotional system is employed in such a way as to help the rational side of the brain for decision making and long-term planning which maintains or enhances one's status.

This conclusion has important ramifications for our moral decision making. Emotion gives us the basis of our values with which we can then rationalise. Emotions are modifiable through learning within social contexts, as they are essentially the 'conditioners' for our behaviour and may well be 'extinguishable' in certain areas of life through new learning. For example, what we once thought was disgusting, may become tolerable or even acceptable or pleasant, and vice versa.⁵⁸

These respective changes in our neuronal structure are referred to as 'neuroplasticity'.⁵⁹ This emotional updating changes the basis of our 'quick fire' judgements and the 'worldview' of what we are in favour of or against, inculcated, perhaps, by just a single encounter with something, such as the example I gave of the abusive dinner party guest, which develops aversive behaviour following the encounter. As Jonathan Ploski & Christa McIntyre conclude:

Emotion is a powerful tool for change in the central nervous system. Whereas, most long-term memories are stored after practice or rehearsal an emotionally arousing memory can be consolidated after a single experience. (Ploski & McIntyre, 2015, p 1)

As people and the world are constantly changing, our 'somatic marker' system will change accordingly. This suggests that continual learning is a necessary component of a sufficient evaluation of 'good' and 'bad', and thus to our moral evaluations.

Learning and continual updating with each encounter, changes our emotional disposition. Some 'systematising' or 'pure' reasoning may well continue in the total absence of emotional evaluations, such as we find in mathematics, or as is evident within Greene's study (2014) which I examined for its research into the 'non-personal' conditioning of the brain. Hence, we might suggest that Descartes' (1637), 'Cogito' presents us with an incomplete scenario of our being, for, as I wish to argue, a 'thinking thing' works *along-side* and *updates* the 'feeling thing' beneath. The 'feeling thing' is what generally motivates our behaviours toward an

⁵⁸ See Nabavi, Fox, Proulx, Lin, Tsien & Malinow. (2014).

⁵⁹ See Doidge (2007), p xv.

enhanced status, of the self and others. I wish to argue that our emotional qualia, conscious reasoning, and imagination, therefore, can be seen as the third manifestation of the 'will to power'. 'I feel therefore I am' seems a more realistic description of human beings, with thinking having the function of modifying feelings with the purpose or result of increased status or fitness. A feeling or emotion is a representation of an organism's loss or gain of status, or their potential loss or gain.

The purpose of our brief look into the emotional system is to highlight its importance in our decision making including 'moral' decision making, and, specifically, to explain how emotions act as 'carrot and stick' to guide behaviour toward what is in the interest of the organism's status. Furthermore, it is helpful to ascertain how emotions constitute a person's 'valuation' system, and underpin notions of 'good/bad' for the organism on an individual basis, or in its response to another organism or group through its capacity for empathy/sympathy. It is useful, too, to determine how these emotions become socially adapted and modified through learning and social conditioning. Emotions can impact us both consciously and unconsciously, making them difficult sometimes to pinpoint. I will examine the effects of our younger rational brain on decision making shortly, but before I do, a quick look at emotion and attention to complete the second of the faculties chosen to highlight where emotion helps us to maintain status.

8.3. Attention.

Colin MacLeod, Andrew Mathews and Philip Tata (1986) present what has become a classic study into attentional bias in anxiety patients. They reported that the anxious patients responded much faster to 'threatening' words than those who were not anxious, and they concluded that emotionally loaded words were already 'primed' for attentional recognition—similar, perhaps, to the gazelle being 'primed' for threatening associations by the watering hole, such as a rustle in the undergrowth where the lion had leapt from in its first life-threatening encounter with it. Their conclusions are supported by studies of semantic interpretation amongst high and low trait anxiety patients using homophones (Eysenck, Macleod, & Matthews, 1987). The homophones had both threatening/unpleasant and non-threatening connotations. These studies found that the higher the patients anxiety level, the more likely they were to interpret the threatening meaning of the homophone (Ibid). These studies further demonstrate the existence of emotionally primed attentional bias. I shall now

turn my attention to the rational mind to show how that functions to increase and maintain status and avoid losses in status.

Chapter 9

The Rational/Cognitive Mind

In this chapter I further investigate the integration of emotion and the cognitive/rational aspects of mind to show how this too functions to preserve and increase status. In Chapter Eight I examined Damasio's (1996) findings that an organism who is able to rationalise but is without the capacity to evaluate according to emotional input will be impeded in their actions, and will experience— in the terminology I wish to employ— a loss of status. His findings strongly suggest that the maintenance and improvement of status is dependent on the rational mind working in conjunction with the evaluative emotional system. From an evolutionary perspective, I concluded that the rational mind had developed over time largely to cope with sociality and planning, and it was therefore a later feature of evolutionary development of the brain, located mostly within the neocortex. Furthermore, I concluded that the vmPFC is an important interface between the rational and emotional aspects of the mind in an organism with optimum status.

Anecdotally, we know that much of our conscious rational thought is employed by us for the improvement of our or others' status. For example, we will plan ahead to ensure we have provisions of food and drink by scheduling shopping trips, and we select those shops and the food and drink we require according to our knowledge and previous experiences. This reveals that our conscious evaluations are a kind of information sharing platform between our emotive valuations and our knowledge of the environment and its processes. When it comes to a moral deliberation, therefore—such as the question as to whether abortion is a morally good action—our response will involve a strong affective input from previous experiences and learning inculcated in the above manner, which will 'push' us to a specific conclusion. But, it is important that we evaluate our decision against potentially new information and experiences that we acquire through continued learning.

We may also involve ourselves in strategies and plans for our career development, and this will be influenced by our ambitions of what we want to achieve. Our strategy will be based on notions of how we can improve ourselves, or perhaps maintain our current status; these will essentially reflect our analyses of costs weighed against the perceived benefits. Indeed, were somebody actively to seek a detrimental outcome to their status without a clear gain in another area of their life or for altruistic purposes, we would suspect that person to have

some kind of mental illness or brain damage such as with the vmPFC patients. I will turn to this crucial consideration in the next chapter.

9.1. Taking the ‘High’ or ‘Low’ Roads.

Earlier I argued that with sociality came morality—not the ‘selfish morality’ about what is ‘good’ for me, but an awareness of what is good for others or the group more abstractly. This involved, I claimed, the development of empathy and of meta-representation, due perhaps, to functional synergies and systematisation within social groups. Meta-representation and systematisation would certainly constitute part of the neocortex’s contribution to our moral thinking, and it is also frequently referred to as the ‘high road’ (or moral ‘high ground’) in psychological discourses with the emotional part referred to as the ‘low road’,⁶⁰ I also argued that sociality increases the power of the group, enhancing the fitness of individuals within the group, and, by the same token, that the ‘synergy fractal’ dictated an evolutionary trend toward the social organism. Clearly human beings have developed along this path. I shall now analyse specific aspects of the ‘social brain’ to draw out evidence in support of my claims.

Daniel Goleman’s book, *Social Intelligence* (2007) provides a wealth of studies and commentary on the workings and function of our social brains. For example, citing the work of Daniel Stern a psychiatrist from the University of Geneva he writes,

Stern concludes that our nervous systems ‘are constructed to be captured by the nervous system of others, so that we can experience others as if from within their skin’. At such moments we resonate with their experience and they with ours. We can no longer, Stern adds, ‘see our minds as so independent, separate and isolated’, but instead we must view them as ‘permeable,’ continually interacting as though joined by an invisible link. At an unconscious level, we are in constant dialogue with anyone we interact with, our every feeling and very way of moving attuned to theirs. (Goleman, 2007, p 43).⁶¹

Stern posits an interesting finding with regards to the linkage between our social and rational ‘high road’ aspect of the brain and the more emotional, selfish ‘low road’. His findings are ascertained from studies involving a scenario called the ‘ultimatum game’. In this scenario

⁶⁰ See Goleman (2007), especially Chapter 5.

⁶¹ Also see Stern (2004), p 76.

there are two people, one of which is given a sum of money, say £10, and they have to give a proportion of the money to the second person. They get to choose the size of the portion. If the second person rejects the offer, then neither of them get any money. In this scenario, each is given power over the other. On the grounds of basic economic theory which posits that 'something is better than nothing', we might expect whatever amount the first person offers would be accepted by the second person. However, this has not been borne out in experiments. If the offer was deemed too low by the second person, more often than not they would reject it, regarding the low amount as an insult, and responding with noticeable anger. If the game were iterated a satisfactory compromise between the two people is eventually reached. Goleman writes:

The Ultimatum Game does not just pit one person against another; within each of them it creates a tug-of-war at the junction of the high and low roads in their cognitive and emotional systems. The high road relies heavily on the prefrontal cortex, critical for rational thought. (Goleman, 2007, p 72).

We know from my earlier discussion of emotion that anger is experienced through a frustration of goals or a perceived injustice, in this scenario, it is most probably the latter situation that arises, due to the fact the recipient expects a more reasonable split. As Sanfey, Rilling, Aronsen, Nystrom and Cohen note, '[O]bjecting to unfairness has been proposed as a fundamental adaptive mechanism by which we assert and maintain a social reputation' (Sanfey et al, 2003, p 1756).⁶² Importantly, in terms of power relations and status, when the recipient decides to reject the offered money so that nobody gets anything, it establishes the foundation of a key concept that I will examine at length later, in Chapter Ten, that of 'altruistic punishment'. In this case, the recipient is foregoing the benefit of increased status in order to punish the other person for their seemingly unjust and non-socially co-operative offer. This behaviour suggests that part of the social brain is wired or 'systematised' into a position of equality. That is to say, our rational brain might harbour the basic premise that all humans are equal as a social 'conceptual schema', and that this leads to a 'utilitarian' heuristic, such as I expounded in the 'trolley problem' from section 7.3, here 'five lives are better than one'. And yet, our emotional evaluative brain assigns different values to people. For instance, you would less likely pull the lever to prevent the deaths of five others if the 'one' that would be killed by your actions is your child, your mother, or other significant person in your life. In this case the 'tug-of-war' would have been won by your

⁶² Also See Frank (1988).

selfish emotions over and above your systemised rational capacity—the low road over the high road. As a selfish decision, and not an altruistic, ‘moral’ one, it suggests that although the evolutionary drive is indeed directed towards group equality and social organisation we are still in transition and heavily influenced by emotions pertaining to close, highly valued individuals, such as through ‘kin’ selection. This evolutionary ‘direction’ would make sense from both a genetic and group evolutionary theory, after all, the human genome will do much better in general if I save the five people rather than the one, *ceteris paribus*.

9.2. Predictions for an Evolutionary ‘Drive’ to a ‘Social Organism’.

In light of my discussions, I think I am in a position to make predictions based on the theory that the brain/mind ultimately is working toward the ‘greater good’ of the human genome, and more importantly, toward the greater power construct. We could propose a series of trolley problems that sought, not so much to expose potential conflicts between emotions and our rationalised, utilitarian part, but rather a more complex and rich social conflict, which could predict that those who are judged as more ‘socially valuable’ are saved in preference to those who number more but who are of less ‘social value’. For example, five unemployed people to one farmer, or five retired pensioners to one doctor, etc. In fact, something of this type has already been done. It has been demonstrated that people were very happy to let five Nazis die if it meant that one non-Nazi could live. The same study demonstrated there is a distinct speciesism at work, which led people to want to save the human in preference to other species, even endangered species. (Petrinovich, O’Neill & Jorgensen, 1993). The important point here is that moral decisions made in conditions involving complex information will more likely involve a person having to carefully scrutinise the information, rather than using their immediate ‘quick fire’ response. It therefore involves slower reaction times as well as emotional evaluations. The decisions one makes will be based on our perceptions of the social worth and functional cohesion of each option, and this, in turn, ultimately leads to increased power and improved fitness in the social group, so beyond a systematised equality to a new social form of inequality and worth.

9.3. Emotional ‘Piggy-Backing’.

Another finding of interest from the study of Sanfrey et al, (2003) is evidence for the idea that our social emotions ‘piggy-back’ on our base emotions—such as, for instance, potential moral disgust that the second person experiences in response to an insultingly low offer in

the 'Ultimatum game'. Sanfey et al. found that the anterior insular (thought to be involved in our base disgust emotion) was also recruited in experiences of moral disgust (Ibid, p 1756). Similar conclusions were found in an earlier study:

Consequently, simple and evolutionary old brain systems may serve fundamental aspects of 'emotional' processing and provide information and motivation for phylogenetically more recent systems to control complex behaviour. (Cardinal, Parkinson, Hall, & Everitt, 2002, p 322).

These conclusions support the conjecture that the social emotions, like the base emotions, are functionally similar as they seek to maintain and improve social position/standing, which is ultimately, another expression for status. We should see the greatest emotional stresses when this status is threatened and fear those environments that we suspect will reduce our status significantly. Goleman quotes Margaret Kemeny (an expert in behavioural medicine) and her colleague Sally Dickerson who note, 'threats or challenges ... are most stressful when you have an audience and feel you are being judged' (Goleman, 2007, p 231). Later Goleman writes:

Dickerson and Kemeny argue that being evaluated threatens the 'social self' the ways we see ourselves through others' eyes. This sense of our social value and status—and so our very self-worth—comes from the cumulative messages we get from others about how they perceive us. *Such threats to our standing in the eyes of others are remarkably potent biologically, almost as powerful as those to our very survival.* After all, the unconscious equation goes, if we are judged to be undesirable, we may not only be shamed, but suffer complete rejection. (My emphasis). (Ibid).⁶³

In this respect, a moral judgement is therefore also a status judgement; it is a threat to one's social status. A moral judgement in the judger is an 'elevation' in perceived status, whether that be as a purveyor, 'official' or authority of group values.

9.4. Anxiety, Stress, Depression and Powerlessness.

Much of Goleman's study focuses on people's mental conditions related to social factors, such as stresses and anxiety that we experience when we feel devalued, rejected, or

⁶³ Goleman cites Dickerson & Kemeny (2004).

ostracised, which can lead to physical ailments such as a reduced immune system. He considers, too, how these help us positively, by facilitating, for instance, faster healing when we have a social network that makes us feel valued and cared for.^{64 65} I cite this as very strong evidence and support, not only for a biological basis for a 'will to power' in the individual person but also for the group, a collective 'will to power', the 'synergy fractal' and the evolution toward the social organism. A CNS that requires us to be a valued member of a group is a stepping-stone to the social organism where we are all functionally pulling together for the greater good (increased power) of the collective.

If I am right in positing power and status to be at the heart of emotions and our rational decision-making, and subsequently, at the basis of good/bad judgements and morality itself, then we would expect that our anxiety, depression, and stress-levels will be greatest when we perceive ourselves to be powerless in the world. Thus, Goleman continues to note:

Feeling helpless adds to the stress. In the cortisol studies analysed by Dickerson and Kemeny, threats were perceived as all the worse when they were beyond the persons ability to do anything about them. (Goleman, 2007, p 232).

Further support for my claim comes from the social psychologist Dacher Keltner (2017), who writes:

The poor and less powerful are nearly twice as likely to experience major episodes of depression—extended periods of feeling disconnected, apathy, despair, and the absence of joy and purpose. (2017, p.154)

Once again, my discussion has led us to a situation where the 'good' in the context of a social group is best served by an empowering 'culture' rather than a 'bad' disempowering one. If we were to compare a person in a group to a cell within an organism's body, that person, like the cell, has a function which is part of the greater organism. That person needs the necessary skills and resources to carry out their function efficiently, and the efficacy of their role will be enhanced by an empowering social environment, such as one that encourages the person to feel valued. Goleman also addresses this point with evidence from

⁶⁴ See especially Goleman (2007), Part V chapters 16-18.

⁶⁵ Also see Hari, (2018) for an in depth look into depression. Although a journalist and not an academic his research citing experts in the field, links powerlessness as a major cause in depression.

numerous studies to demonstrate the power dynamics that affect people and the emotional contagion that can occur as a result. He says:

Emotions flow with special strength from the more socially dominant person to the less. (Goleman, 2007, p 275). He continues later. “Another powerful reason for leaders to be mindful of what they said to employees: people recall negative interactions with a boss with more intensity, in more detail, and more often than they do positive ones. The ease with which demotivation can be spread by a boss makes it all the more imperative for him to act in ways that make the emotions left behind uplifting ones. (Goleman, 2007, p 276).⁶⁶

This situation is not to do with a liberal political correctness, but as I have explained, in attention studies, an anxious person will not be focused on their work function but worried about their status, with them being more loss-averse. They will see more negativity around them, which will trigger aversive behaviour such as wanting to leave their job. Their emotions will affect others around them as well, contributing to a functionally inefficient group. These are important matters when it comes to questions like who should be the leaders? A disempowering leader or system could act as a ‘virus’ or ‘cancer’ in any functional group, and an empowering leader or system a ‘tonic’ for it. Once again, we see the ‘good’ leader as one who uses their power and authority to empower others. A ‘bad’ leader, by contrast, is one who tries to restrict empowerment of others or undermine them perhaps in order to keep or gain more power, thereby embodying a selfish approach. In any social system there will be a constant flux of power relations—and this again exposes the dichotomy between individual power and power of the group. I will revisit these ideas when I examine social psychology and the social sciences in Chapters Eleven and Twelve, with emphasis especially on the work of Stanley Milgram and Philip Zimbardo.

9.5. Suicide.

Power theory in general explains the existence of depression and suicide far better than current evolutionary theories such as ‘selfish gene’ or ‘group’ theory.⁶⁷ In fact, there seems no fitness benefit to depression and related suicide as even an infertile person could help in the fitness of others in a social system. However, suicide can be a last desperate ‘power’

⁶⁶ Goleman cites, Dasborough, (2006).

⁶⁷ For a discussion of evolutionary theories of suicide and depression see Aubin, Berlin & Kornreich, (2013) and Galecki & Talarowska, (2017).

play for a social cause, so in this sense can come under group theory. In general, however, it is worth just appreciating the fact that our psychology is based on power and status evaluations and not on fitness and how different our psychology would be if all we were interested in was procreation—in such cases, pregnancies would be a happy event and never sad or depressing. Infanticide would never happen unless in times of famine, perhaps. The loss of fertility would always be emotionally catastrophic, nobody would ever use contraception or self-sterilize, etc. In the next chapter I will turn to those who possess minds that lead them to do what are often regarded as ‘evil’ acts, to try to understand why they do them, and that by considering these deficiencies it enlightens necessary requirements for normal ‘moral’ decision making and what I refer to as the ‘moral spectrum’.

Chapter 10

Psychopathy the Autistic and the Moral Spectrum

In this chapter I look at studies with the non-neurotypical to highlight the different areas of the brain involved in moral decision making and how neurological conditions can affect them.

In his book *The Science of Evil* (2011), Simon Baron-Cohen equates evil with ‘empathy erosion’ and with objectifying people (2011, pp 6-7). Philosophically, this definition will not suffice as it would suggest evil is simply an action or intent not involving empathy leading to the objectification of others. And this will not do as much of our social life revolves around a kind of functional objectification where we ‘see’ the ‘role’ rather than the person—such as an ice cream seller. Even Baron-Cohen refutes his own hypothesis when he speaks of people on the autistic spectrum having empathy erosion. In such cases they are, he says, ‘supermoral’. He also posits the idea of another, perhaps secondary process, which leads us to morality, which he calls ‘systemizing’. I will examine this in detail later, but for now it is sufficient for me to consider how ‘erosion of empathy’ can lead people to ‘evil’ acts, which is to say—according to my argument—acts which denigrate the status of another.

10.1. Psychopathy and Empathy Erosion.

Baron-Cohen divides ‘empathy erosion’ into two basic categories, which he calls ‘zero negative’ and ‘zero positive’. The positive here refers to those on the autistic spectrum who have zero empathy but have other ‘positive’ features such as precise, exact minds leading to talent and to their potential as ‘supermoral’ beings. They still have their affective empathy intact, but their cognitive empathy is either degraded or non-existent (Ibid, pp 99-100). The ‘zero negative’, he understands as a condition which is ‘unequivocally bad for the sufferer and for those around them’ (Ibid, p 47). Although we may accuse Baron-Cohen of sneaking into his summation his own value judgements (and, as I shall explore later in this chapter, even psychopaths might be viewed as possessing ‘positive’ traits resulting from their psychopathy), what is important to note here is that those who are considered as ‘zero negative’ do indeed commit what most of us would agree to be ‘evil’ acts.

The 'zero negative' types are often attributed with various labels or terms, such as psychopaths, sociopaths, narcissists, borderline personality disorders, and Machiavellian natures— which generally are categorised as 'Anti-Social Personality Disorders (APD)' within the most recent *Diagnostic and Statistical Manual of Mental Disorders* (5th edition, 2013). They are people at the extreme end of a spectrum of behaviours, the nature of which will become apparent as our investigation proceeds, but suffice to say, this end can feasibly be characterised in terms of evolutionary traits and in terms of the group dynamic as a 'selfish' trait.

'The neuropsychological literature on psychopathy has identified two core neural regions that seem to be dysfunctional in psychopathy: the amygdala and the vmPFC' (Blair, 2007, p 388). As was shown through Damasio's somatic marker hypothesis (1996), the emotional domain informs the rational domain, and cognitive learning updates one's emotional capacity. If this system is dysfunctional in some way, to the extent that other people are given no somatic value through empathy, then these people will not be considered through a person's rational capacity, and will subsequently be regarded as no more valuable than any other thing, so that others are regarded as mere 'objects'. In this regard, psychopaths, for instance, will be unable to distinguish between moral and conventional considerations (Blair, 2007). Of the amygdala, Blair says, '[I]n short, the amygdala enables the individual to learn the goodness or badness of objects and actions' (Ibid, p 389). Both regions of the brain, the amygdala and the vmPFC, also feature in Baron-Cohen's empathy circuit. Indeed, he calls the amygdala 'the jewel in the crown' of the empathy circuit (Baron-Cohen, 2011, pp 30-43).

According to Goleman (2007). '[E]mpathy is the prime inhibitor of human cruelty: withholding our natural inclination to feel with another allows us to treat the others as an it' (2007, p 117). In this respect, those with zero empathy are free to pursue selfish goals (or their perceived notion of their group's goals) free from any concerns about anticipated consequences to others. Goleman also explains that this freedom gives such people a surprising advantage in modern society, enabling them to achieve success more readily: 'Modern society, glorifying me-first motives and worshipping celebrity demigods of greed unleashed and vanity idealized, may be inadvertently inviting these types to flourish' (Ibid, p 118). This advantage suggests that such people are not entirely 'zero negative' as Baron-Cohen suggests.⁶⁸ Speaking of the 'Machiavellian' type (abbreviated by Goleman as 'Machs'), Goleman asserts

⁶⁸ Also see Maccoby (2003).

that: 'Machs appear to experience their emotionally dry inner world as rife with compelling primal needs for sex, money, or power' (Ibid, pp 126-127). Money, I claim, is essentially a proxy for power as money gives us causal influence in the world, which is power and status. Without empathy, one's selfish instincts guide one's behaviour and employ social cognition entirely to its own ends, which is to say, entirely for the increase and maintenance of one's own status with no concern for the status of others. Such people, in effect, embody the evolution of those 'cheaters', or the 'ultra-selfish' gene, or cancer cell that I analysed earlier—they are its equivalents within the social world of advanced organisms.

The following extract is taken from *The Science of Evil* (2011), from an interview that Baron-Cohen conducted with a psychopath, whom he refers to as 'Paul'.

He insisted he wasn't guilty because the man he had stabbed had provoked him by *looking* at him from across the bar. Paul had gone over to the man and said, "Why were you staring at me?" The man had replied (I assume truthfully), "I wasn't staring at you. I was simply looking around the bar." Paul had felt incensed by the man's answer, believing it to be disrespectful, and felt he needed to be taught a lesson. He picked up a beer bottle, smashed it on the table, and plunged the jagged end deep into the man's face". On further probing for signs of moral conscience Paul defended his actions by saying, "He humiliated me in public. I had to show him I wasn't a doormat." (Baron-Cohen, 2011, pp 68-69).

What is interesting here for our purposes is the obvious link to power/status. Paul perceives his status as coming under threat from the man, first, by the man's prolonged eye contact, and second, by what he interprets as a disrespectful response to his question (the latter of which may have been construed by Paul as intentionally seeking to contradict his own interpretation of the event, thereby branding Paul a liar or as paranoid). Clearly Paul felt humiliated and therefore inferior by the man's response and that experience takes on the role of a 'stick', causing Paul to attempt to regain his status. In Paul's case, he experiences humiliation, which leads to anger and to a violent suppression (or overpowering) of the perceived 'threat'. It is very interesting that he regards his violent behaviour as an act of 'teaching him a lesson'. Paul sees it as a form of punishment for the man's transgression of morally bad behaviour. A key reason as to why this case is particularly interesting and relevant at this point in my argument is that Paul's behaviour leads nicely to my consideration of the notion of 'altruistic punishment' as a fundamental attempt to maintain or regulate social norms—though, Paul's behaviour itself illustrates a more ancient version of it: selfish status maintenance.

I alluded to notions of altruistic punishment earlier, in section 6.2 and my evolutionary account of morality with the emergence of 'tit for tat' strategies in social groups to counteract the invasion of 'cheaters'. To recap, if an individual is 'selfish' and receives grooming or some other benefit without reciprocating, then punishment is administered in such a way that inevitably involves the 'victim' having to expend more energy administering the punishment (such as, communicating with others in the group about the misdeed or using physical force against the cheater). Because this punishment is at the expense of the one who administers it, and is not necessarily for their own benefit but for others and for the wider social group, the punishment is deemed 'altruistic' or 'good' under our biological definition of altruism. The selfish individual can thus be 'marked' or ostracised by others or made to suffer as a 'lesson', in order to condition the desired behaviour of the individual and others generally.

What is required for punishment to be administered is an 'erosion of empathy' toward the 'wrongdoer' (which is exactly what Baron-Cohen cites as 'evil' in his studies), and perhaps more importantly the power to do so. In this respect, punishment naturally gets equated with power. We all experience empathy erosion to some degree toward 'wrongdoers' or 'cheaters'. Justice systems in the form of prisons lock people into a small cage often for up to twenty-three hours a day. Some employ death through lethal injection, gas chambers or electric chair. Essentially 'psychopathic' behaviour. The empathy towards perceived 'wrongdoers' has been almost entirely eroded and is often accompanied by a pleasurable feeling at the punishing of the 'wrongdoer'.⁶⁹

What would Hollywood do without this urge for vengeance and the satisfying of our anger and outrage at the actions of the 'baddie'?! We tend to feel satisfied when the 'baddie' gets his or her or its just deserts. How cheated we would have felt had the great white shark in Steven Spielberg's film *Jaws* eaten Chief Brody and been allowed to go on its merry way, rather than being blown to bits?! Or if the Emperor in George Lucas' *Star Wars* trilogy kills Luke Skywalker, destroys the rebellion and goes on to a long tyrannical reign over the galaxy, instead of being thrown into an abyss by the parentally altruistic, Darth Vader? Both positive and negative emotions are thus necessary for the instigation of altruistic punishment—thus, anger is common response to a norm-violation and this provides the motivation to act, and this leads to pleasure at seeing the norm-violator punished. Thus, we

⁶⁹ See De Quervain, Fischbacher, Treyer, Schellhammer, Schnyder, Buck, & Fehr. (2004), for neurological evidence of emotional reward from punishing.

see here the 'selfish' system in the context of the social system. Many crimes or 'evils' may well stem from a desire for altruistic punishment. I will examine the nature of crimes within this context shortly.

It is useful here to take a deeper look at this notion of 'judgement' because, as I wish to suggest, the only key difference between the psychopath and the altruistic punisher in this regard seems to be the different locus of the emotional motivation. The psychopath in the earlier example, Paul, punishes his victim for purely selfish evaluations of his perceived threat to his status. By contrast, the altruist punishes his victim out of a general concern for social values or rules, which maintain the status of the group as a whole, as well as from a position of empathy for the loss in status of a particular individual within the group. The one who violates the social norm is thereby not regarded as 'one of the group', they do not participate in common concerns or in mutuality, but are regarded as the 'other', as one who does not contribute as required within the group or society.

There is much research in psychology on 'in-group' and 'out-group' interactions and how differently we treat those in the out-group compared to the in-group. But we do not need science to tell us something we already know or intuit. What we might call the 'greatest evils of all time' are invariably perpetrated by one group over another who are perceived as different in some sense—whether that be, for instance, the Nazi's and the Jews, the white European enslavement of the black African, the burnings of Catholics by Protestants and vice-versa, wars and war atrocities against other nations, and so on. Wherever we can find a category or group to identify with, there seems to be a corresponding inferior/superior judgement that goes along with it, and subsequent behaviour with virtually no or little 'moral' constraints. I wish to claim that humans are not moral animals, but conditionally-moral animals. If you are not on our 'moral radar' then it seems anything goes. I will elucidate the nature of this 'moral radar' shortly.

10.2. Autism Spectrum Disorder and 'Systemising'.

It is useful to consider Autism Spectrum Disorder (ASD) in contrast to psychopathic behaviour, for these, I contend, sit at opposite ends of the 'moral spectrum'. Baron-Cohen has described many with ASD as 'supermoral' yet they too suffer from a lack of empathy toward others. So where do their 'supermoral' motivations come from? Baron-Cohen explains:

people with Asperger Syndrome are the mirror image of those with Type P: Psychopaths have intact cognitive empathy but reduced affective empathy, while people with Asperger Syndrome have intact affective empathy but reduced cognitive empathy. The result is that people with Asperger Syndrome do care about others, while struggling to 'read' them. Those with Type P [psychopaths] don't care about others, while at the same time 'read' them with ease. (Baron-Cohen, 2011, p 109).

He continues, perhaps more importantly, to reveal that those with ASD also:

systemize to an extraordinary degree. Systemizing is the ability to analyse changing patterns, to figure out how things work. Information changes happen in the world all day every day and are either random or non-random. If change is non-random, there is a pattern to it, and the human brain is tuned to notice patterns. (Ibid).

According to Baron-Cohen, while every person is on a systemising spectrum, as well as an empathising spectrum, with a normal distribution 'bell curve' pattern amongst the population, 'People with Asperger Syndrome have a brain that is exquisitely tuned to notice patterns.' (Ibid, p 110). Psychopaths and those with ASD will be zero on the empathising spectrum, but as we have summarised, for different reasons. Furthermore, those with ASD will be at the highest level of the 'systemising' spectrum, what Baron-Cohen calls 'level 6':

People at level 6 judge other people's behaviour as rigidly as they judge the behaviour of inanimate objects. The facts are either true or false. There is no room for shades of gray. People at level 6 are so focussed on the truth they become self-appointed moral whistleblowers when someone breaks a rule, however minor. (Ibid, p 121).

'Correct' or appropriate behaviour for those with ASD, resides in recognised patterns and rules; because they cannot empathise their way to a moral rule, it has to be recognised or learnt. Nevertheless, they tend to feel comfortable with repetition and sameness, and feel empowered by following the rules, and tend to think that others, too, should follow the rules, and can become upset when the rules change or when others disregard them.

Victoria McGreer (2008) cites an anecdote⁷⁰ of a man with autism, playing the board game 'Scruples'—a game that involves listening to a given situation and telling others what should

⁷⁰ Anecdote from Keel, (1993), p 49.

be done in that situation. The situation under scrutiny on this occasion involved a storeowner who saw a woman stealing a small amount of food from his shop; the storeowner was aware the woman was poor and had children to feed. The young man with autism in this situation responded thus: 'Everyone should go through the checkout line. It is illegal not to go through the checkout line. She should be arrested' (McGreer, 2008, p 240). McGreer questions the extent to which 'systemising' is a path to morality, and whether those who are on the autistic spectrum are simply following rules with no real inclination of why those rules are actually there (Ibid, pp 240-241). McGreer argues that the motivating force behind autistic morality is a 'passion for order' (Ibid, p 244). In this respect, McGreer posits a similar notion to Baron-Cohen's 'systemizing' route to morality, but for those with empathy erosion.

I am going to suggest here that cases of autism bring attention to a part of the mind that is necessary for the building of a social organism, where selfish concerns are replaced by more universal rules that everyone should follow—which is to say, a kind of blanket equality that imposes the necessary structure for a social organism to function, and which originates in our interdependence and our abstract representation of the group and our place within it. This part of the mind does not grant special privileges to anybody. It is a part of the mind that is still linked to the affective system, which is evident in the anxious responses of autistic people to routines which have become broken. Systemising, categorisation, and the recognition of patterns thus become instrumental for the formation of a 'social organism'. Thus, whilst the psychopath is happy to ignore rules and do 'evil' unto others for selfish reasons, the autistic person—as perhaps exemplified in the example of the game of 'Scruples'—will unwittingly do 'evil' unto others for the 'greater good' of the social system, albeit by 'blindly' following the rules.⁷¹

Evidence for this systemising part of the brain comes from the fact that those on the autistic spectrum use different areas of the brain for their moral decision making compared to the neurotypical person (Schneider, Pauly, Gossen, Mevissen, Michel, Gur, Schneider, & Habel, 2012). Psychopaths, by contrast, have great difficulty distinguishing between the moral and the conventional distinction (Blair, 2007).

⁷¹ This notion is relevant to Utilitarianism and Totalitarian regimes or 'state' dominant systems. There the individual gets sacrificed for the 'good' of the many, which is to say, a criticism not unfamiliar to Utilitarianism and Totalitarianism or 'state' dominant systems. We will explore this shortly in our look at Milgram's work (1974). The 'good' here relating to the power of the system or state.

In the study of Greene et al (2001) that I examined earlier, in section 7.3, a conflict exists between what the researchers called the personal (affective) condition and the impersonal (utilitarian) condition. What is of interest to us here is that reaction times of those who refused to push someone off a bridge to save five people (emotionally congruent) are not significantly different to those who would pull the lever to save the five (the utilitarian condition). This suggests that if no emotional 'buttons are pressed' then a simple automatic heuristic is used, and, by the same token, if emotional 'buttons are pressed' then an emotionally driven quick response is used. When the two are in conflict we have what Greene referred to as our 'manual mode', where conscious deliberation is involved, thereby using additional time to process the desired outcome. In the same study there is also evidence for different brain areas used for both conditions, which suggests both an emotional reaction and a systemised reaction.

Baron-Cohen also explains our systemising mechanism using those with Asperger's syndrome and autism to highlight just how dominant the mechanism is in their lives. Pattern recognition is a huge part of this mechanism and from an evolutionary perspective we can see how the recognition of patterns would be adaptive, as they enable us to predict the future with some accuracy. Migration patterns for example would be useful information in the context of hunting. Indeed, Baron-Cohen goes so far as to define 'truth' as 'repeatable, verifiable patterns' (2011, pp 108-115). Science will often refer to these patterns as 'laws'. McGreer uses the phrase 'a concern for 'cosmic' structure and position', as one of her three varieties of moral agency and suggests, that 'it is this sphere of concern that dominates in autistic moral agency' (McGreer, 2008, pp 250-254).

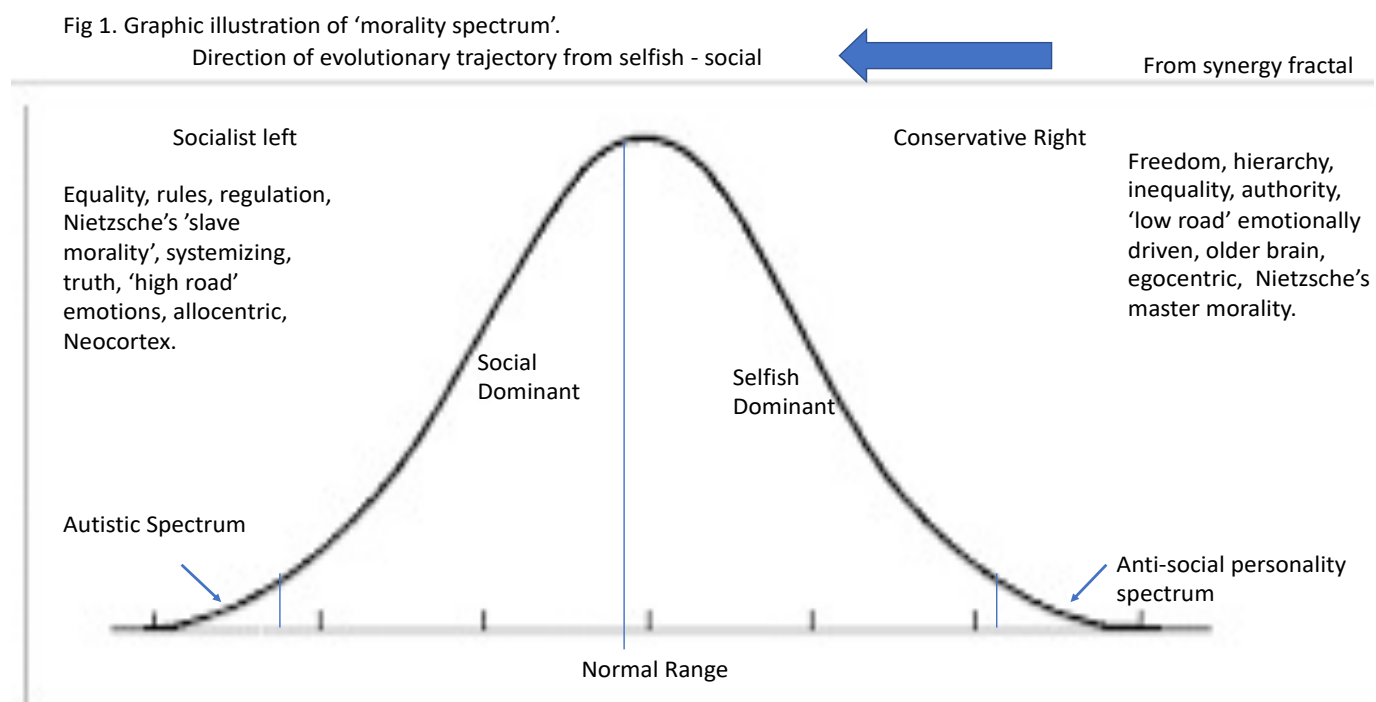
This is essentially a 'truth' seeking concern. We looked earlier at Batson et al (1981) and their assertion that true altruism cannot have any self-serving features including positive emotional feedback. This systemising feature of mind provides just such an outcome, something akin to the 'golden rule' of treat others as you wish to be treated. If we simply have this as a schema to follow, we no longer need feelings or emotions as 'carrot and stick', just a simple rule. This 'cold' rule-based altruism may be the next step in evolutionary development for the individual social human toward forming a more functional 'social organism'.

Those with anti-social personality disorders appear happy to break rules and moral/social conventions for their own ends when and where necessary without regard for others. As Kent Kiehl says:

On the one hand, the psychopath is capable of articulating socially constructive, even morally appropriate, responses to real-life situations. However, when left to his or her own devices, the psychopath's actions are frequently inconsistent with his or her verbal reports. (Kiehl, 2008, p 119).

10.3. The Moral Spectrum.

If we are to claim that autistic people put social rules first and psychopaths put their own interests first delineating two ends of a spectrum, then in this context, everybody else could be construed as somewhere along this selfish-social 'morality spectrum'. Indeed, I am now in a position to speculate further about this 'spectrum' and its constituents in light of all we have thus so far surveyed. See Fig 1.

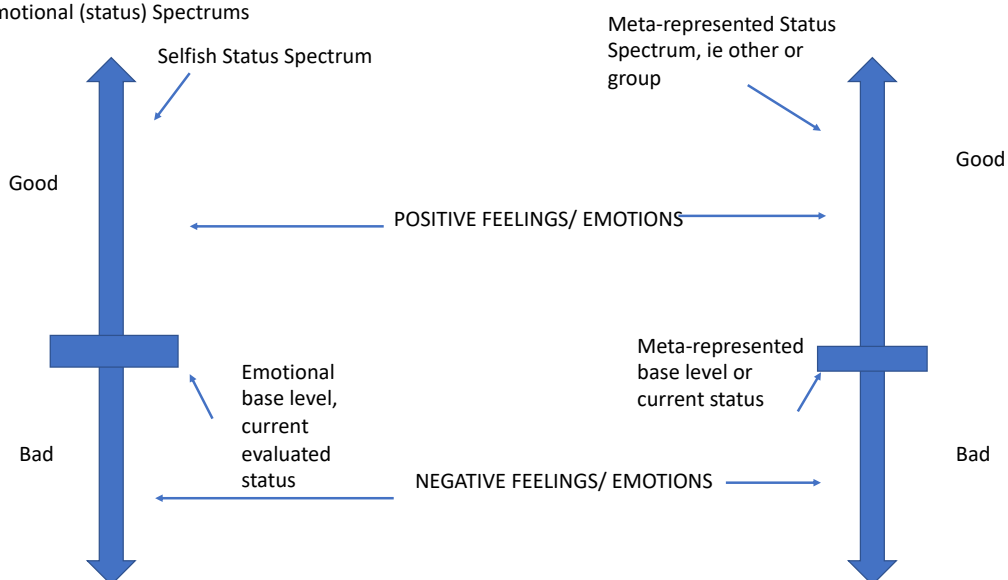


The positioning of the vertical line demonstrates my argument that the majority of the human population is still quite selfishly and emotionally driven in respect to power relations

(morality). From a cultural perspective, I would expect the line to hit the centre when we develop our value-system in such a way, for instance, that we value our care-workers, nurses and essential functionaries within the social organism equally, with respect to financial investment/salaries as we do our accountants, bankers and trust fund managers. That is to say, when we value those who look after our loved ones and enable our social system to operate consistently, just as we do those who look after our personal finances and wealth. Whilst no doubt controversial, my model includes aspects of the political spectrum to highlight the dichotomy of right/left political systems as reflections of human behavioural traits and ‘conflicts’ of mind. After all, if morality and our values are linked to politics—and surely, they are—then the morality spectrum inevitably influences the political spectrum.

The emotional ‘high road’ transects the social brain, and the reasoning process updates our emotional ‘base level’. There is potential, therefore, for our emotions to be in conflict—whichever emotion/s eventually motivate us into action will be the ‘dominant’ one/s. This scheme may seem overly deterministic, nevertheless, the extent to which one can choose our dominant motivation—whether it be in accordance with selfish or social principles—is at the heart of philosophical debates of ‘freewill’ and also central to many religious concerns on proper, virtuous behaviour (with a call to transcend desires of the selfish self to become a more caring, giving person). See Fig 2 for a graphic representation of this.

Fig 2: Emotional (status) Spectrums



Earlier I explained how emotions track power/status relations. To reiterate, for example, if I belonged to a group such as a church, which was facing a public scandal, which will reduce

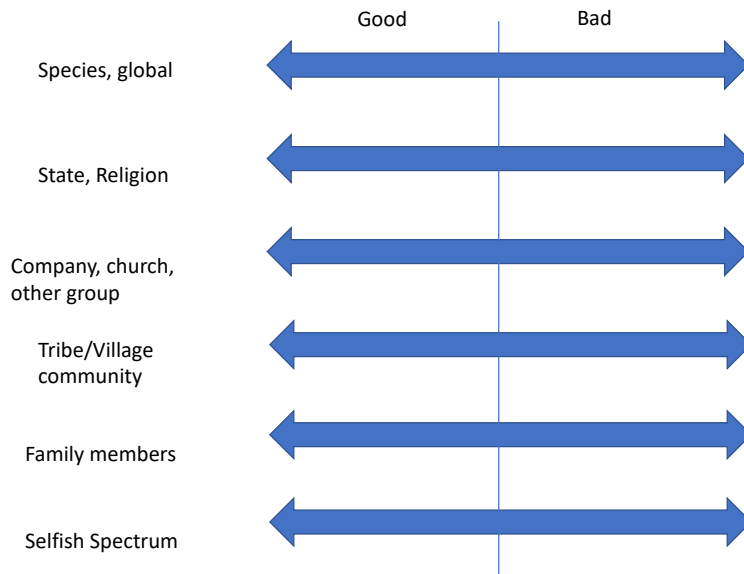
its causal efficacy in the world (power) over others, which in turn, will lower my status in the world, then the level on both spectrums would drop, and negative emotions such as shame/anger would be felt, which in turn would motivate behaviours that seek to regain status or minimise status loss. If, however, that same church had just inherited a million pounds from an inheritance thereby raising its power in its social domain, and mine as a member within it, then both levels on the spectrums would increase, giving me a positive feeling of joy. Of course, these spectrums interact and there can be many levels and points of interaction.

We learnt earlier that the moral good or altruistic concerns indicated a lowering of one's status to enable an increase or maintenance of another's status. This thus entails an overcoming of one's 'selfish' emotions for the benefit of others with a positive emotion or 'elevation' of the social status. Thus, a moral action, such as donating money to charity, might well trigger mixed emotions, with a negative emotion that comes with the personal loss of money, and the positive emotion of having helped others. The negative impact of the personal loss may be mitigated if the action is publicised, thereby enhancing the person's social status, in this case, the selfish level may remain unmoved, but the meta-represented level is subsequently raised due to the positive emotional feedback generated by the public recognition of the act (for instance, emotions of pride). If the action were publicised and the person donated money in order to look good in their social group and in order to achieve feelings of pride, the action is in large part, self-serving. We may then argue that the action is subsequently no longer moral. If we made such a claim, then we would effectively push the moral good to embody only those actions that seek a loss of status for the agent (whether that be an individual or group), while at the same time causing a status increase of another individual or group.

As our emotional base-level climbs upwards to a greater power status, that base-level is modified. Any loss that brings us back to our original base-level will be perceived as a status loss and will trigger accompanying feelings of aversion. Feelings and emotions are, I contend, direct manifestations of an underlying drive to power/status or will to power.

If we turn to some of the possible meta-representations of groups available we can appreciate the complexity of moral decision making, which, as I claim, is really power-relational decision making. See Fig 3.

Fig 3: Illustration of common status effecting metarepresentational groups.

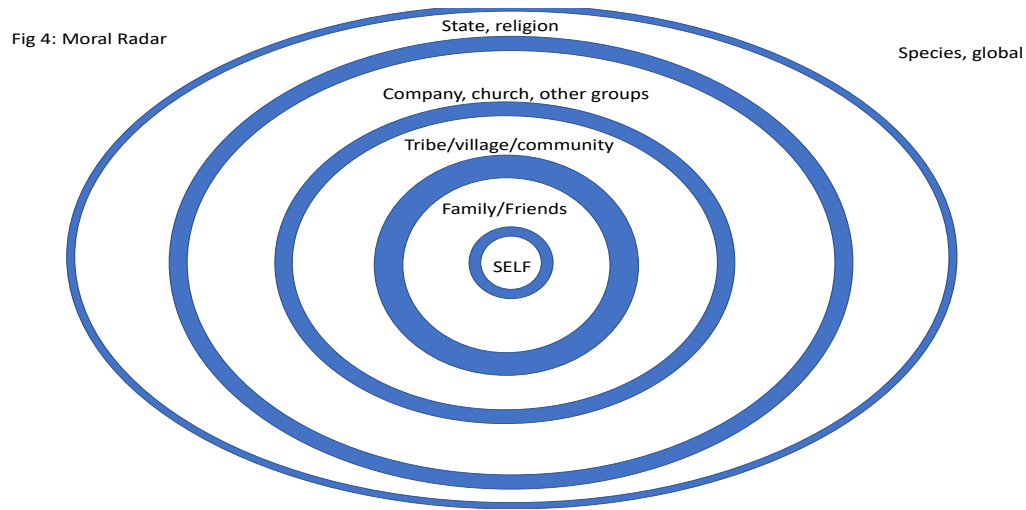


The above diagram exemplifies a basic hierarchy of a person's affectual group membership. These groups are likely to have an emotional impact on the person's behaviour at any one time. The needs of the groups will often be in conflict with each other and with the selfish needs of the person, and because of this they will require the person to engage with their 'manual' conscious rationalising system to ascertain the 'moral' thing to do in occasions of conflict. Each step up this hierarchy becomes less selfish as it is less proximate to the individual's own personal status.⁷² It would seem that actions aimed at the survival of the human genome or species will therefore be least proximate and most 'moral', as evolution 'views' everyone, and perhaps the planet itself, as integral to the survival of the social organism to which all humans and their genes belong.

Discernment of these factors require experience, learning, and rational thought in conjunction with emotional response. Such discernment exposes what I refer to as the 'moral radar'. (See Fig 4.) Thus, as we evolve and learn, our 'moral radar' will grow to encompass all those things we see as important and relevant to our identity and functioning. The teleological goal of this is the enlightened realisation that *everything* should feature within the 'moral radar'. Everything can impact on our power or continual survival and should be evaluated accordingly. Those aspects that fail to be considered, and which subsequently

⁷² This is just an example, the hierarchy will change according to the individual's notions of identity and therefore which groups are more proximate in terms of status. Church or religion may become more empowering and proximate than family.

do not feature within the scope of our 'moral radar' are segregated or 'othered' and treated as inferior or irrelevant.



10.4. Evolution of the 'Moral' Locus.

Before I turn our attention to key findings from social psychology I need to 'cement' the understanding of this 'moral spectrum' and its fundamental relationship with power status, with some basic examples of what we normally call bad/evil. To do so, let us return to the psychopath, Paul, and then to key research on homicide, considered as a social evil.

Let us imagine that Paul, instead of smashing a beer bottle into the face of the person he wanted to 'teach a lesson' to, had pulled out a pistol and shot him through the head killing him instantly. Let us imagine, too, a witness, Dave, who, so enraged by this act, also pulls out his handgun and shoots Paul through the head as an act of 'altruistic punishment'. Dave is subsequently arrested and tried in a court of law and convicted of Paul's murder. Dave is handed the death penalty, and let us imagine this death penalty is from a firing squad. Dave is subsequently shot through the head. We must now ask ourselves, what exactly is the difference between the three shootings in terms of the 'moral good'. We know that the motivations of the shooting committed by both Paul and Dave were emotional—out of anger. We also know that Paul's anger was motivated for perceived threat to his selfish status, while Dave's anger was motivated by either empathy or/and a systemised 'rule' based convention which triggered the angry response. Dave, however, may well have experienced a pleasant feeling of satisfaction from having completed the 'altruistic punishment', but this feeling was not the motivating factor. The third killing (of Dave by the relevant governing

authority) was not motivated by emotion but from a 'cold' systemic factor, that of social control. The third shooting was undertaken to re-enforce the power of the governing authority and to act as deterrents against those whose behaviour transgresses or is detrimental to the regulations that are imposed for the functioning of society, which is to say, the greater social 'good'.

The principal difference between the three killings, therefore, amounts to differences in degree between the enhancement of selfish status, on the one hand, and enhancement of non-selfish status on the other, which is to say, 'good' for the self, verses 'good' for another or social group or system. Paul's 'good' for the self is tantamount to Dave's 'evil/bad'. Both Dave and Paul have made an emotional 'automatic' evaluation/judgement that leads to their respective acts of killing, though one originates from the ancient brain (Paul's), and the other from the younger empathic brain (Dave's). Regardless of this, both men's actions will be judged by society as 'bad'. Society deems it the case that both men 'ought' to have had the capacity to temper their automatic actions with reasoning (and knowledge of the fact that it is both illegal to kill and to take the law into your own hands acting as a vigilante). In other words, that both men ought to have employed the systemising, conventional aspects of the brain to restrict its emotional affect.

When it is discovered that Paul suffered from psychopathy and therefore could not control his actions as easily as Dave, we can now ask ourselves the question, is Dave therefore more 'evil' than Paul? Many of us will sympathise with Dave and say he was doing a social 'good', others will simply abide strictly with society's 'rules' and say it was wrong to kill Paul—that 'altruistic punishment' was unnecessary and that Dave ought to have allowed the appropriate legal system to punish Paul accordingly. These different approaches highlight a conflict between emotionally dominant thinkers on the one hand, and the systemising 'rule following' thinkers on the other. Others still, will question a society that allows psychopaths access to guns and place the blame there—a more abstracted understanding of status effecting systems and policies through pattern recognition.

The basic differences between these responses are no different at group level; a state could, for reasons of status-preservation, inflict punishments including death on those who oppose it, while another state witnessing such persecution might intervene by imposing 'altruistic punishment' on the first state on a larger scale. At this level of behaviour, we discover conflicts between the maintenance of local power and internationally agreed 'rules' of

behaviour, such as human rights. The problem of 'altruistic punishment' ultimately falls to those who have the power to do it. If the perpetrator is most powerful, then 'altruistic punishment' can only be accomplished by others co-operating together again, underlining the evolutionary 'drive' toward working together and functional synergies at group levels. Once again these 'rules' are designed to guard against the 'cheaters' and bond the social organism.

Another problem highlighted in any situation like this is the lack of information/knowledge surrounding any judgement of good/bad. Thus, in the case above, Dave was not aware that Paul was a psychopath. Dave's ignorance could extend to other possibilities such as Paul being a legitimate government official, employed to assassinate a 'would-be' terrorist prior to them carrying out an attack. Or Paul might well have been carrying out his own 'altruistic punishment' on someone who murdered his friend's wife. The problem of ignorance will always be a confounding problem in any justice system or in the 'moral' condemnation of another person. This is no different at the group level. Thus, reasons of persecution against others are often regarded as responses to other 'offences', they are 'altruistic punishments' and the 'tit for tat' at the heart of our social world. I need only point to world history and the news in general to see how this never-ending cycle of 'altruistic punishment' continues and often escalates.

10.5. Infanticide as Status Protector or Improver.

Let us now turn to homicide in general to try to conceptualise in greater detail the relationship between bad/evil and status. In their book *Homicide* (2014), Martin Daly and Margo Wilson demonstrate how evolutionary theory can help us to understand the reasons for and causes of many acts of 'evils'—even those that at first seem to contradict evolutionary theory, such as infanticide: a parent killing their own genetic offspring. The four most likely reasons for maternal infanticide in the anthropological record are they claim, lack of paternal support, deformity, too close to birth of older child and twins (Daly & Wilson, 2014, p 48).

Each of these factors is related to status threats. In communities where resources are scarce or hard to come by, it is likely that a woman without support simply will not be able to provide for her baby, as such, both her baby and her own survival are threatened. Similar reasons underpin the other factors. Thus, if a child is born whilst another is still weaning, the

second child detracts from the survival chances of the first (coupled with the fact, they claim, that a single woman with a child is less likely to attract a husband in the future). They tell us, 'Infanticide can be the desperate decision of a rational strategist allocating scarce resources' (Ibid, p 42). In so doing, they reveal how rationality is focussed primarily on the acquisition of status.

One of the large variables in the study of Daly and Wilson was paternity. Indeed, as I explained in my analysis of evolution and sexual selection, the male can never be one hundred percent certain of its paternity, and male sexual jealousy is a mechanism that has evolved to try to ensure exclusivity in mating. If the male suspects that a child is not his and he subsequently rejects his parental responsibility of the child, it could, Daly and Wilson claim, lead to greater likelihood of infanticide (Ibid, p 47). This situation is also related to status, as a male who is unsure of paternity risks a lot of resources for a child which is not his. We would view a male knowingly raising another male's child as his own as an altruistic and 'morally' good act.

We normally view infanticide as an 'evil' on the grounds that it is often perceived to be a selfish act, but also due to our empathic meta-representation of the infant. However, in these extreme environments where survival might be the difference between a 'cold' rational evaluation, not only of survival for the mother and child but also the enhanced status of a group, the mother or father may well have to commit such a seemingly 'evil' act to facilitate better prospects of raising an infant later in life. These decisions are not taken lightly or without the usual emotional reactions of sadness or grief. Daly and Wilson lament:

And yet as we read the tragic accounts of this desperate deed from the one society after another, it is not the inhumanity of the unfortunate perpetrators that confronts us, but rather their humanity. (Ibid, p 59).

Infanticide is not just a product of Third World conditions or of hunter gatherer tribes. Daly and Wilson examined this crime in western societies, including a survey of historical records of infanticide in England. They conclude that '[i]f the history of English infanticide reveals anything, however, it is surely that acts of desperation are principally the products of desperate circumstances' (Ibid, p 69). In other words, seemingly 'evil' acts, such as infanticide, are tied with attempts by people to maintain their own status. This indeed may explain how and why many women ended up in situations that led to infanticide in the first

place. In England, in the late 19th century, 11% of the female population were in domestic servitude, and comprised 78% of unwed mothers.⁷³ In the 1860s, London newspapers were 'reporting up to five dead babies found in city parks in a single day' (Ibid). These women represented a 'status' threat to those they were 'serving', especially if power had been abused by one of the males in the household they were serving in, and was the father of the child. Being pregnant, then, often meant being put out of service and losing one's livelihood. As Daly and Wilson concede, '[r]eformers decried the hypocrisy of laws that punished the 'victims of cruel seduction' but not their seducers' (Ibid, p 68). Protection of selfish status for the individual or family leads to another protection of selfish status, and in both cases we would normally refer to these acts and intentions as 'evil'.

Abortion can be construed as a pre-emptive form of infanticide, and as such it is likely to be driven by the same social forces. A recent analysis of reasons for abortion deduced the following as the principal reasons: The need 'to postpone/space childbearing', the desire for 'no more children, socioeconomic concerns, partner-related [reasons]'. Parents feel they are 'too young or parents/others object' to the pregnancy; and, finally, there is a perceived 'risk to maternal health or fetal health' (Chae, Desai, Crowell & Sedgh, 2017, p 3). Interestingly, these reasons are very similar to those which Daly and Wilson gave for infanticide in the earlier paragraph, and each is traceable to the maintenance of status for an individual or/and close kin.

10.6. Homicide as Status Protector or Improver.

Men make up the bulk proportion of the prison population; in the U.S men represent approximately 93% of inmates.⁷⁴ And from the perspective of evolution of the male organism it is perhaps unsurprising given that the male's evolutionary drive for power and status to obtain mating rights, makes competition with others an inevitability, and that this competition often results in violence and sometimes death. Status is, I claim, at the heart of criminal activity, whether it is blatant status-enhancement such as with acts of robbery, theft, and fraud, or less blatant status-enhancement acts, such as homicide. Daly and Wilson conclude that one of the most frequent causes of death amongst men is what some have described as 'altercations' usually over seemingly trivial matters. 'Such altercations', they assert,

⁷³ See Behlmer (1979) Cited in Daly & Wilson. (2014). p 67.

⁷⁴ Federal Bureau of Prisons (2018)

‘constitute the most prevalent variety of urban homicide in the United States’ (Daly & Wilson, 2014, p 125). They also find that:

A seemingly minor affront is not merely a ‘stimulus’ to action, isolated in time and space. It must be understood within a larger social context of reputations, face, relative social status and enduring relationships. Men are known by their fellows as ‘the sort who can be pushed around’ or ‘the sort who won’t take any shit’.

They go on to say:

In most social milieus, a man’s reputation depends in part on a credible threat of violence. Conflicts of interest are endemic to society, and ones interests are likely to be violated by competitors unless those competitors are deterred. Effective deterrence is a matter of convincing our rivals that any attempt to advance their interests at our expense will lead to such severe penalties that the competitive gambit will end up a net loss which should never have been undertaken. (Ibid, p 128).

Here we note the striking similarity of the instinct to preserve status at the individual level and at the state level. The maintenance of a police force, military and especially a nuclear deterrent, is driven by the same underlying ‘will to power’ and status maintenance or improvement that a person experiences when they carry a gun or a knife. And it does not end there. Challenges to power and authority have often faced the severest penalties even if they are non-violent in nature. Treason and heresy are social crimes that speak to the very notion of a person or group of people acting against the current governing ‘authority’, leading to historical punishments (in England at least) of hanging, drawing, and quartering. It seems we have double standards for the preservation of personal status and the status of our governing leaders or systems. What is ‘psychopathic’ for us at an individual level must, I claim, also be ‘psychopathic’ at the state level. The action, the intention, and the causation are, I argue, identical, and only the degree of power at each level is different. The individual verses the social organism represents a huge difference in power between the two.

It stands to reason that what is immoral or psychopathic for one individual of a certain status, is psychopathic and immoral for a person or persons of a different status. An action or intention cannot be psychopathic for one and sane to another, or moral for one and immoral for another based solely on the status of the individuals concerned, or indeed, the numbers of people advocating for either side. However, it would appear that an act or

intention can go from psychopathic or immoral to sane and moral depending on the locus of the status that is represented. For example, if I were to explode a nuclear bomb in one city and threaten another with the same fate unless I am paid a billion dollars, my intentions would be seen by all as immoral (and probably psychopathic). However, if I were to drop a nuclear bomb on a city and threaten another with the same fate in order to shorten a conflict with a view to saving thousands or millions of lives, I might be seen as sane, and taking a moral stance (or if not the 'moral' course then at least the lesser of two 'evils'). In short, the second scenario becomes more 'moral' because I act in the interests of a group and not merely in my own selfish interests. A suicide bomber might rationalise their 'altruistic' action in the same way when they kill others for a 'greater good'. This is a good example of how our intentions can slide from selfish considerations to social ones along the 'moral spectrum' (as in Fig. 1), and why it is imperative that we move past social sub-groups to consider status at a global level. I contend that morality therefore lies in intentions that enhance the status of others or the group.

Although it might seem from my discussion that selfishness forms the basis of evil or immoral actions, we must understand the fractal nature of selfishness as well. Some of the worst 'evils' in history have been perpetrated not by psychopathic individuals acting alone but by groups of people acting together in ways that they themselves regard as 'morally' good. Why do 'normal' 'moral' people commit such heinous 'evils'? It is to this question I turn to in the next chapter.

Chapter 11

Social Psychology

In this chapter we look at why supposedly normal 'moral' people perform 'evil' acts upon others, revealing how the power of the situation, group dynamics and 'systems' influence our 'moral' judgements and behaviour.

11.1. Obedience to Authority.

Why do 'normal' 'moral' people commit such heinous 'evils'? was a question asked by Stanley Milgram in response to the second world war and the holocaust. His studies and findings shocked the world in several ways. He invited ordinary members of the public to partake in a psychology experiment, which he presented as experiments intended to test the effects of pain on memory, but their intention was actually to test obedience. He ran a series of experiments with hundreds of volunteers over many years, the results of which have since been verified. The studies showed that an ordinary person will willingly deliver a potentially lethal electric shock to another volunteer on the mere grounds that they were simply following the instructions of a perceived authority (in this case a scientific experimenter).

Screams of pain, requests to be freed and complete silence to questions were ignored by the participant at the gentle, but authoritative insistence of the experimenter. Some participants expressed unhappiness and concern for what they were doing and refused to continue, but the majority continued despite their own protestations and the protests of the others they were harming. It is important to note that this experiment was carried out under conditions of peace (not during war), and not at the insistence of a malevolent authority, but on request from a man in a lab coat, who at no time became aggressive or threatened them. Milgram demonstrated the power of authority, and also how people feel duty-bound to comply with the authority. For example, if your barber told you to take off all your clothes before beginning you probably would not comply, but you probably would if you were seeing a doctor. Similarly, you probably would not allow your doctor to hold a razor to your throat, but you would your barber. In each situation we have an awareness of legitimate authority and we tend to obey this authority to enable them and us to carry out our respective functions; our behaviour is directly influenced by this power dynamic.

I discussed earlier how life in a social group generates greater power and chance of survival when there is a competitive environment, and, furthermore, that the inhibition of selfish motives enables this to happen. Groups have to be organised to be effective, usually comprising functional duties or 'roles' to individuals and sub-groups, which they co-ordinate from a central point. This point is the source of authority in the group. As Milgram notes, if individuals are to form groups in such a way,

The internal design of each element must be altered. Control at the level of each local element must be given up in favour of control from a superordinate point. The inhibiting mechanism which are vital when the individual element functions by itself become secondary to the need to cede control to the co-ordinating component. (Milgram, 2010, p 130).

Milgram's language here deliberately echoes that of cybernetics, for a key problem of cybernetics involves the need to achieve functional synergies between individual elements through command and control. What is important here is that our usual 'moral' decision-making is bypassed or superseded by our need to work or function in the wider social group, and this requires us to obey the perceived authority. For example, in ordinary situations, most of us would not kill another person, but, when working as part of a group at war, the status and survival of the group as a whole becomes the 'moral' focus, so that we are more likely to kill in defence of this group if we are ordered by the authority of the group to do so. A soldier cannot be an autonomous agent, he or she must work as a functional unit in a larger 'machine' or organism and obey orders from those with a strategic overview. Likewise, the participants within Milgram's experiment were playing a role in a larger power dynamic—that is to say, the authority of 'science' in its pursuit of truth. The participants recognised the legitimacy of the authority and its larger ideology even if they were uncomfortable with the actions they were performing. Milgram tells us:

Therefore when the individual is working on his own, conscience is brought into play. But when he functions in an organisational mode, directions that come from the higher-level component are not assessed against the internal standards of moral judgement. Only impulses generated within the individual, in the autonomous mode, are so checked and regulated. (Ibid, p 131).

Milgram refers to the switch from autonomy to systemic behaviour as the ‘agentic shift’,⁷⁵ and the state of relinquishing one’s autonomy to become an agent of a larger group as the ‘agentic state’. He writes,

From the point of view of cybernetic analysis, the agentic state occurs when a self regulating entity is internally modified so as to allow its functioning within a system of hierarchical control. From a subjective standpoint, a person is in a state of agency when he defines himself in a social situation in a manner that renders him open to regulation by a person in a higher status. In this condition the individual no longer views himself as responsible for his own actions but defines himself as an instrument for carrying out the wishes of others. (Ibid, p 135).

Obviously in this case, ‘internal modifications’ are changes in the human brain, which occur through evolution or learning. If we think back to our scenario of the three different shootings—with the psychopath, Paul, who killed for selfish reasons, and to Dave, who killed Paul for reasons of altruistic punishment, and to those who killed Dave by reason of a systemic response—we can see, in miniature, the evolution of the moral brain from a purely selfish outlook to that of the larger social organism with altruistic punishment now carried out by the appropriate designated functionaries. All three parts or factions are still present within our mindsets, but the ‘lower’ emotional responses have to be censored or inhibited for the smooth working of the social organism. Our empathy, similarly, has to be ‘eroded’ or overridden for the efficient functioning or ‘benefit’ of the social group or organism. We can immediately see here how ‘group thinking’ will potentially impose ‘evils’ (status loss) on an individual.

The social organism or system represents a large leap in power from the position of individual, and it thus becomes very important as to who becomes the ‘legitimate authority’ that oversees other’s actions, and, by extension, what processes or criteria are to be employed to obtain this authority. This is because an organism that is in a position of authority will still have, embedded within it, selfish motives—and this could prove fatal or detrimental to the overall power of the social organism or group, in the same way that a cancerous cell is detrimental to the multicellular organism. To that end, it is important that we consider the notion of systemic evil and how a ‘power domain’ affects those within it

⁷⁵ Analogous to the ‘switch’ in bacteria that causes them to act individually or co-operatively as was discussed in section 2.6. Only in this case without a ‘central controller’.

changing their behaviours in ways we would consider evil, to show how power and perceptions of one's power can also erode empathy for others producing a new 'top-down' form of evil.

Each of us will perform a variety of different 'roles' within our lives. At work, we take on a role in order to perform specific functional duties. When we do so, we are no longer autonomous individuals, but a cog in a machine or a specific part of a larger organism, such as a state or company with given responsibilities and tasks. Many will put on a uniform to convey their role and authority to others, such as police, military officer or prison guard. Uniforms or costumes signalling rank or authority are ubiquitous in human society. In a social system it is natural for people to seek roles of greater power and influence in accordance with our 'will to power'. This of course is a competitive exercise with others given that only a few can rise to the top of the status pyramid; so often we will have to 'settle' at a level where we feel we can no longer go beyond. If we relate this notion of progress and 'settling' to my analysis of the emotions and their relationship with power and status, we can infer that where one is on the pyramid—where one has 'settled' will form the basis of happiness and self-esteem. Each step up the career ladder usually comes with a measure of pride, and also conveys a superiority in power and status, and it can also facilitate psychological effects, which we might regard as 'evil'. To this I now turn.

11.2. Systemic 'Evil'.

One experiment that highlighted the effects of a large power differential among 'ordinary' people was the Stanford Prison Experiment (SPE) carried out by Philip Zimbardo in 1971. He randomly allocated the role of prisoner or guard to each of the participants and built a makeshift prison at Stanford University. What happened was as shocking and unpredictable as anything Milgram had found in his experiments. Within only a couple of days the participants had settled fully into their different roles with abuses of power coming to the fore to keep the prisoners 'in line' and following the rules. They had become systematised, and the prisoners were powerless, with some exhibiting signs of anxiety and depression. The guards had the power and showed signs of power struggles between them, as they set about dehumanising the prisoners with subsequent cruelty (Zimbardo, 2007). In other words, the prisoners were no longer on the guards 'moral radar'.

The less cruel guards did little, if anything, to stem the cruelty of guards toward the prisoners. It is easy to forget these were all ordinary young men just divided randomly into two groups. What was being exposed in this experiment was behaviour directly determined by the power of the system, its roles and its rules. Zimbardo writes:

Systems are the engines that run situations that create behavioural contexts that influence the human action of those under their control. At some point, the System may become an autonomous entity, independent of those who initially started it or even of those in apparent authority within its power structure. Each System comes to develop a culture of its own, as many Systems come to contribute to the culture of a society. (Ibid, pp 179-180).

The character transformation of the guards by the power dynamics of the situation is noticeable in the diaries kept by the guards. Guard Chuck Burdan, for example, prior to the experiment writes: 'As I am a pacifist and non-aggressive individual. I cannot see a time when I might guard and/or maltreat other living things' (Ibid, pp 190-191). After the guard-orientation meeting, he still has reservations as to whether anyone will take this whole thing seriously. On the first day he writes: 'My main fear at the outset of the experiment was that prisoners would see me as a real bastard, as a guard type, as all the things I am not and not the way I envision myself' (Ibid).

On day two he writes: 'Walking from my car I suddenly wanted people to notice my uniform'. He is beginning to realise his power/status and feel some pride. By the end of the second day he commits his first act of cruelty: 'After we had Count and Lights out [Guard Hellmann] and I held a loud conversation about going home to our girlfriends and what we were going to do to them (to irritate the prisoners)' (Ibid). He also starts the habit of banging his club on bars, walls and chairs to 'show my power'.

On the third day he writes:

After warning the prisoners not to make any complaints unless they wanted the visit terminated fast, we finally brought in the first parents. I made sure I was one of the guards on the yard, because this was my first chance for the type of manipulative power that I really like—being a very noticed figure with almost complete control over what is said or not. While the parents and prisoners sat in chairs, I sat on the end of the table dangling my feet and contradicting anything I felt like. This was the first part of the experiment I was really enjoying. (Ibid, p 191).

Notice how power and enjoyment correlate. On the fourth day he is rebuked by the psychologist for handcuffing and blindfolding a prisoner before leaving the office. On the fifth day he writes:

I harass 'Sarge' who continues to stubbornly over-respond to all commands. I have singled him out for special abuse both because he begs for it and because I simply don't like him. The real trouble starts at dinner. The new prisoner [416] refuses to eat his sausages. We throw him into the hole ordering him to hold sausages in each hand. We have a crisis of authority; this rebellious conduct potentially undermines the complete control we have over others [...] I am very angry at this prisoner for causing discomfort and trouble for the others. I decided to force feed him, but he wouldn't eat. I let the food slide down his face. I didn't believe it was me doing it. I hated myself for making him eat but I hated him more for not eating. (Ibid).

This experiment shares key features to Milgram's study. There is a conceptual gap between how one thinks one will and ought to behave in a situation with how one actually behaves. The power dynamics in the situation determines behaviour, but not, it would seem, 'personality'. Milgram solicited the views of the general public and professional psychologists, asking them how they thought people would behave in his experiment. The majority responded that they thought people would withdraw when the participants receiving the electric shocks started crying out in pain and asking to be released, (Milgram, 2010, pp 28-32), but hardly anybody did. Likewise, Burdan seems oblivious to how the 'role' and the situation will change him. What is interesting here though is how the power/status become all-important to him, not only his growing pride but in how his role seems to dictate his behaviour in the situation. Challenges to authority are met with increased cruelty—and this is a point I highlighted in relation to crimes of Treason and Heresy: these challenges to the authority incurred excessively cruel punishments.

The prisoners also strove for power and status to maintain their self-esteem, prisoner #416 did this by refusing to eat. The link between powerlessness and depression is further supported in this experiment by the comments of one prisoner: 'The worst thing about this experience was the total depression that set in from being constantly hassled and the fact that there was no way of getting out' (Ibid, p 109).

This experiment supports my argument by revealing explicitly the pride-depression spectrum and its link to power and status. From a random division of an ordinary group of men into two groups, each assigned different roles with different power and status, led to those in the group with power feeling proud and cruel or feeling wholly indifferent, while the ones in the group without power became anxious and depressed. Of course, not all suffered depression at the same levels and, equally, not all became cruel to the same degree, but a clear link is established in this experiment. Zimbardo tells us:

The fundamental human need to belong comes from the desire to associate with others, to co-operate, to accept group norms. However, the SPE shows that the need to belong can also be perverted into excessive conformity, compliance, and in-group verse out-group hostility. The need for autonomy and control, the central forces toward self-direction and planning, can be perverted into an excessive exercise of power to dominate others into learned helplessness. (Ibid, p 230).

11.3. Anonymity and De-Individuation.

One of the causes of cruelty which Zimbardo identified was that of ‘de-individuation’, which was triggered by wearing a uniform. The uniform caused participants to identify with the symbolism of it rather than with their own individual values. If you got to wear the uniform, the more likely you were to behave cruelly towards those who were without one, and the more you were likely to compete with those with one. This phenomenon of deindividuation is essential to any given social organism, for it provides a certain anonymity and release from personal constraints. A widespread example of this is ‘trolling’ on the internet—those who troll do so under the cover of anonymity.

In another experiment, Zimbardo tests the difference between anonymous and identifiable women. Each group were asked to give electric shocks to participants, and it was found that those women who were anonymous delivered twice as many shocks. In conclusion, Zimbardo notes: ‘Experientially, it comes not from sadistic motives of wanting to harm others but rather from the energising sense of one’s domination and control over others at that moment in time’ (Ibid, p 300).

Zimbardo continues to assert:

People can become evil when they are enmeshed in situations where the cognitive controls that usually guide their behaviour in socially desirable and personally acceptable ways are blocked, suspended, or distorted. The suspension of cognitive control has multiple consequences, among them the suspension of: conscience, self-awareness, sense of personal responsibility, obligation, commitment, liability, morality, guilt, shame, fear and analysis of one's actions in cost-benefit calculations. The two general strategies for accomplishing this transformation are: (a) reducing the cues of social accountability of the actor (no one knows who I am or cares to) and (b) reducing concern for self-evaluation by the actor. (Ibid, p 305).

What becomes clear from my assessment of these experiments is that feelings of superiority within groups in authority erodes empathy towards those who challenge it or to those who refuse to conform. It leads those in authority to regard dissenters as unequal, and it leads in extreme cases toward a complete dehumanisation of them as inferiors ('others'). There are similarities here to the empathy erosion I described in relation to altruistic punishment, but here the punishment is unlikely to be altruistic in nature, for the superiority experienced in a social system by those in power may easily be internalised as a sense of personal superiority, thereby confusing the person with the role. As power and status grows, one's pride and perceived superiority grows, and it can do so to delusional proportions to the extent that a person may start to think of themselves as transcending others in their human-given nature, regarding themselves as god-like. Certainly, many Emperors reached this level of delusion.⁷⁶

11.4. The 'Hubristic Spiral'.

We know from cognitive psychology and studies in anxiety and depression that an emotional 'spiral' can be triggered during periods of anxiety and depression, which leads one to see only 'bad' things in the world, thereby reinforcing one's impression of oneself as powerless, thereby making us more depressed (Teasdale, 1988). It seems plausible to consider an emotional spiral occurring at the other end of this spectrum, whereby a person who experiences their power, becomes biased to feelings of invulnerability and superiority which lends to a swelling of pride; in such cases, we can assume a person with inflated grandiosity notices only those who support them or adore them, and devalue, disrespect, or fail to notice

⁷⁶ See MacCulloch, (2009), p 45.

their detractors, who seek to undermine the feelings of power. We can call this the 'hubristic spiral', Zimbardo's 'Lucifer Effect'.

Our first steps along this 'hubristic spiral' may well start from a perceived sense of superiority such as winning an award, a fight, an election, a battle, or obtaining an influential job or 'role'. This compels certain thoughts and behaviours which aim to maintain this status; it could, for instance elicit certain expectations from others, such as demanding special treatment or recognition from them; it leads to the unfair judgement of others, perhaps of not accepting what others—of perceived lower status—have to. This may well lead on to feelings of self-righteousness, and ignoring other's opinions, expecting others to treat you with greater respect than the average person. It could lead, for instance, to expectations that others stand as you enter the room, or in extreme cases, to bow, kneel or prostrate before you. There seem no limits to human delusions in this area. Others believing these kinds of delusions could be important for the maintenance of the power domain and conformity. These delusions are often willingly accepted by those who are inferior, and not merely out of fear of the repercussions if they do not do so; indeed, we see willingness by many in the respect or veneration given to a god or King/Queen, and this appeal to authority figures within a group will raise the status of the whole group, even if there is absolutely no intrinsic superiority in the human nature of the person who is elevated. Delusional belief can make people feel more important than they are. Thus, superiority and inferiority are aspects that are directly linked to the power structure of a social group.

11.5. The Ubiquity of Power Dynamics in Social Life.

More recently, the research of Dacher Keltner (2017) has lent support to the essential power dynamics that underpin social life itself. He writes:

power defines the waking life of every human being. It is found not only in extraordinary acts but also in quotidian acts, indeed in every interaction and every relationship, be it an attempt to get a two-year-old to eat green vegetables or to inspire a stubborn colleague to do her best work. It lies in providing an opportunity to someone, or asking a friend the right question to stir creative thought, or calming a colleague's rattled nerves, or directing resources to a young person trying to make it in society. Power dynamics, patterns of mutual influence, define the ongoing interactions between fetus and mother, infant and parent, between romantic partners, childhood friends, teens, people at work, and groups in conflict. Power is the

medium through which we relate to one another. Power is about making a difference in the world by influencing others. (Keltner, 2017, p 4).

Keltner's work demonstrates how power dynamics form the basis for 'moral' judgements. Keltner reveals what he calls the 'Power Paradox', which asserts that people come to power usually by consent of others who empower them for the benefit of the group or society. However, this empowerment will change the individual, and will often corrupt them, leading them to commit immoral acts. Reflecting Zimbardo's arguments on the corrupting nature of power, Keltner writes, 'I came to believe that experiences of power and privilege are like a form of brain damage, leading to self-serving, impulsive behaviour' (Ibid, p 117). Keltner tells us power corrupts in four ways. 1) Power leads to empathy deficits and diminished moral sentiments. 2) Power leads to self-serving impulsivity. 3) Power leads to incivility and disrespect. 4) Power leads to narratives of exceptionalism (Ibid, p 101). I contend that Keltner's summation is right in so far as power tends toward the selfish/psychopathic end of the morality spectrum. The question I wish to ask is, what accounts for such behaviour? According to Keltner, it is attributed to 'ancient seductions in our DNA' (Ibid, p 96). In other words, it originates in the instinctual need to be dominant and to make sure others are kept in their place so as not to threaten one's power status. Before there was a pleasurable feeling for punishing 'wrongdoers', there was a pleasurable feeling for domination of others for showing our superiority. The power instigated by the group aligns with the individual will to power. I will now briefly summarise my findings from psychology before moving on to a brief look at power dynamics in social science. This is to show how the findings support the evolutionary argument I presented in Part One.

11.6. Findings from Psychology.

Significantly, the conclusions and findings of studies within psychology appear to dovetail with my analysis of accounts within evolutionary science. Thus, the older emotional 'feel'-system is our basic motivation for our subsequent behaviour and it contributes to our fundamental valuation system with which our younger, rational mind reasons with. This 'younger' part of the mind also harbours our social intelligence and our creative faculty, which in conjunction with experiential learning, 'updates' our emotional brain and resets our values. This suggests that a search for moral principles or truths is power enhancing and adaptive. Values need to be updated in line with our learning about what is best for us and the human species more generally.

The systemising part of our brain also provides a basic framework for rule following and pattern recognition, which helps with the search for values and truths, and by extension, provides evidence for the 'jump' to a social organism. And, as I explained in my discussion of the findings in evolutionary accounts of the development of organisms, the social organism represents a leap in power, as predicted by the direction of the 'synergy fractal'. Further evidence for this was provided by Goleman (2007) and his findings from 'Social Intelligence'. These claims, together with our evolutionary findings, made it possible for me to speculate on a direct link between our natural development and a 'moral spectrum', which itself ranges from psychopathic selfishness at one extreme, to systemised rule following behaviour at the other (as exemplified by those with ASD). This development echoes the evolutionary shift from individual organism to social organism. Wherever each of us lies on this spectrum will influence whether we see individual power and freedom tending towards inequality as dominant or see ourselves as part of a synergistic group tending toward equality as dominant. This gives us our values which in turn influences our political outlook.

I also explained how emotion and rationality aim at improving one's status, either for the individual or for our perceptions of others or one's group. The status of the groups that we identify with will also determine the status of the individual. Thus, a new level of 'selfishness' can also exist at the group level favouring those who are like me (whether they are, for instance, of my race, skin colour, religion, nationality, and so on) over those who are perceived as different. This phenomenon has been called 'groupishness'. (Haidt, 2012, p 219). These are all expressions of the 'will to power' that I have identified as the evolutionary driver. Our 'moral radar' will expand its range as and when we become more familiar with our environments and the effects it has on us.

I also demonstrated through the work of Milgram (1974) the significant notion that, even when we become part of a group, we are still subject to committing 'evil' acts within it. It would seem to be the case that doing one's 'duty' is no guarantee of being 'morally' good. Obedience and compliance to an authority in a social framework can lead one to greater 'evils', because in such situations power has escalated. Thus, genocides are not perpetrated by one psychopath but hundreds, or even thousands or millions of obedient followers, all working in accordance with the norms or ideologies established by a social group to which they belong. Our 'moral' conscience (empathy erosion) can be bypassed or overridden by our need to obey and conform. A 'top-down' 'evil'. This highlights how important it is to make

sure we have the 'right' kind of leadership. To be elaborated on shortly and in Chapter Thirteen.

The selfish individual who undermined group synergies and 'group mindedness' and who subsequently ignores the needs of individuals within the system, is in effect, 'morally attacking' those individuals and the group as a whole, a 'bottom-up' 'evil'. My argument posits two instinctual systems which underlie moral decision making. On the one hand, there is the empathetic drive, which appears to emotionally bind individuals leading us to establish social groups, and on the other, is the drive to its systemisation, which is required to turn the social group into a cohesive, functional synergy of greater power. This will involve the formation of a hierarchical structure of authority. Bearing in mind that powerful groups can be parasitised, the 'right' kind of leader at the top of this hierarchical organisation is rather like the brain's relationship to the body—it 'looks out' for all the cells in the body, a 'social neuron'. Any group leader needs to make sure all are served equally, he or she must not be self-serving or serve only part of their group. With different levels of moral (power) consideration and two separate systems involved in moral decision making, beside a perceived moral attack on the group from 'below' and the individual from 'above', we can begin to see why applied ethics is such a 'minefield'.

Zimbardo's (2007) studies were significant to my argument as they demonstrate how our social systems and conventions can also create 'systemic evil', and how an increase in power due to the creation of systemic 'roles' can influence a person to behaviour they thought impossible of them. This was confirmed by Milgram's (1974) studies. These studies together with Keltner's (2017) research show how pride can lead to cruelty and 'exceptionalism', while powerlessness often leads to anxiety and depression. In so doing, these studies support my earlier claims about depression and, furthermore, that power and status is a principle driver of human behaviour, with our 'qualia' as a manifestation of the will to power. My analysis gave me cause to speculate about a 'hubristic spiral', which is the term I gave to the psychological phenomenon of grandiosity and inflation of self, which presents itself as opposite to the depressive 'spirals' that are often discussed. The spiral that I refer to is triggered by increases in power and status, and results in a bloating of self-esteem to delusional proportions, where a person feels superior to others, and believes themselves to be intrinsically more valuable than another, requiring, as a result, acts of deference and reverence from others. As one's perceived 'superiority' grows, empathy is eroded, and so, perhaps, is the effect of the systemised structural part of the brain, which

seeks to structure equality through interdependence. One deludes oneself in to believing that one is no longer dependent on others, even though, in actuality, one becomes more reliant on others.

At the depression end of the spectrum, 'power theory' offers an explanation that natural selection cannot regarding depressive suicide. There is no obvious fitness benefit to suicide from depression, from the perspective of a group or from that of the 'selfish' gene. This suggests, I argue, that our emotions are not principally aimed at survival benefit, but power/status evaluations. Survival benefit is secondary to power acquisition. As Nietzsche observed, 'life is itself will to power: This world is the will to power—and nothing besides! And you yourselves are also this will to power—and nothing besides!' (WP, 1067). In line with Nietzsche's view, I assert that will to power is the underpinning drive of life itself, and is the principle that underpins the evolutionary development of organisms, including their psychology. Let us now turn to social science to see yet again how power permeates through from our psychology into our social systems.

Chapter 12

Power Dynamics in Social Science

Up to now I have principally been addressing how co-operation between organisms develop and how ‘morality’ evolves. That is to say, how sociality itself comes into being and how ‘moral norms’ become a necessary constituent of the social system. These moral norms protect the status of the group and become the ‘engine’ that drives most, if not all, of our social norms. As I have argued, new ‘moral’ imperatives will come into being as and when the social system or the individuals within it negotiate perceived threats to their integrity or status— such as lessons learnt from wars, diseases or environmental threats. The social organism must adjust to incorporate perceived threats to its functioning/power, and this means protecting the lives of all who constitute it, or sacrificing some to protect the many as and when necessary.

We do not have to go too deeply into theories from the social sciences to discover discourses on power, which confirm my argument. I have already made the point that increased power is the key reason for co-operation and the formation of groups in the first place—a process that Corning (1983) called a ‘functional synergy’.

12.1. The Synergy Hypothesis Revisited.

Corning’s ‘Synergy Hypothesis’ applies to biological systems and social systems, this, he claims has crucial connections to thermodynamics.⁷⁷ He writes:

energy throughputs have often been neglected by social scientists concerned with explaining human social behaviour. (One exception is the anthropological tradition that relates changes in energy use to culture and cultural evolution.) Yet a substantial proportion of human activity worldwide is directly or indirectly related to the acquisition, husbanding, and consumption of energy (food, fuel and thermoregulation). Thus thermodynamics is not at all remote from the scientific understanding of human beings, society, and politics (Corning, 1983 p 83).

⁷⁷ Interestingly, as Keltner notes, the philosopher Bertrand Russell makes similar connections: Russell asserts that ‘the fundamental concept in social science is Power, in the same sense that Energy is the fundamental concept in physics. The laws of social dynamics are laws which can only be stated in terms of power’ (Russell, 1938, p 10 in Keltner, 2016, p 22).

To this equation, I would add 'morality', because morality—as I am arguing—is itself grounded in power—and hence energy—dynamics. Whilst Corning does not think culture can be reduced to thermodynamics (Ibid), he provides a unifying theory that encompasses the concerns of biology and social structures, and as I have pointed out, functional synergy is about power. Corning draws an important distinction between hierarchy in a social organisation and a 'dominance hierarchy'.

A distinction must also be drawn between hierarchy as an aspect of a complex social organization and the ethological concept of a "dominance hierarchy." A hierarchy in the former sense denotes a structural and functional property of a goal-oriented (cybernetic) system. In the latter sense, it has traditionally denoted an interpersonal relationship of dominance and subordination that arises from competitive interactions between two or more individuals and, presumably, correlates with differential access to such fitness related items as food, mates, nesting sites, and grooming privileges.

In socially organized species individual dominance may or may not coincide with the occupation of a control "role"; the dynamics of an organized group may not conform to any simple, linear patterns of interaction. (Ibid, p 102).

This is very important in the context of my argument, as it exposes a distinction which Nietzsche, never fully addressed in his philosophy of will to power and his consideration of power dynamics. That is to say, Nietzsche grounds his understanding of morality on a hierarchical system of slave and master morality—claiming that different epochs and cultures tended to be driven by one or other. As such, he does not develop a cohesive understanding of social systems more generally, and refers to social systems and hence value judgements as herd-like. 'These value judgements and hierarchies are always the expression of the needs of a community or herd' (JS, 116). Nietzsche applauds the hierarchical caste system or 'pecking order'. (A, 57). I will critique Nietzsche's moral theory in more detail in Part Three. I would suggest that a 'dominance hierarchy' is an earlier social evolutionary 'step' in the progression toward a social system, as a fundamental kind of organisation, the vestigial remnants of which we still see in advanced industrial societies with monarchies and aristocracies, a 'hen-like pecking order' of status each with their specific rank and title, with very little functional significance.

12.2. An Argument Against Nietzsche's Idea of the Will to Power.

In Part Three I will posit a position that reputedly counteracts the will to power as a fundamental drive of life. That being the idea that surely not everything can be linked to power (Leiter, 2000, p 286). I began to address this argument when I examined Keltner's work earlier in section 11.5, and we can see similar themes in Corning's work, with his supposition that we tend to concern our lives tending to the bare fundamentals. Thus, Corning, notes, for instance, that the average American spends about 75% of their lives trying to fulfil basic human needs. Corning writes:

In the course of a 24-hour weekday this person spends 7.75 hours sleeping, about 8.5 hours at work (producing income), 1.2 hours in transportation, 1.4 hours in activities related to satisfying nutritional needs, 1.1 hours in activities related to physical health (washing, bathing, dressing, brushing teeth, exercising), about .9 hours in activities related to reproduction and child nurturance, and 1.6 hours in acquiring information not related to work (television news, newspapers, magazines, conversations). (Ibid, p 196).

Written in 1983, this did not include online activities, such as searching the Internet and using social media, which now is a huge part of information gathering and maintaining social status (as well as new 'online status' needs, in terms of generating 'likes' and becoming an 'influencer' or choosing who you are influenced by). We must also reflect on how much getting dressed (fashion) or putting on make-up is about one's status; similarly, our social dinners also can act as a chance to increase status and impress others. Corning quips how a parlour game could be played tracing the most trivial of human actions back to meeting our basic needs such as 'tying a shoe or sharpening a pencil' (Ibid, p 197). From my perspective—and, as I will come to show Nietzsche's too—these kinds of activities that occupy—as Corning maintains—two-thirds of one's average day, are expressions of one's will to power. Take the seemingly trivial action of starting your car, for example, which may be a necessary thing to do if one is to go to work and earn money for shopping for food, and so on. The car that you drive is itself a reflection of your social status, and an acquisition potentially obtained on a cost-benefit and utility analysis, compared to using public transport. The action of starting the car and the car itself is thus an expression of your status and your will to maintain it—it is, I contend, as an expression of your will to power. If we were to find something which is clearly not an expression of the will to power, then it is this that would be a rare psychological exception and a cause of interest as to how it came to be.

12.3. More Evidence Against the Idea of a 'Freewill'.

If our behaviour is all compelled by will to power, then it is probable that the laws or patterns in socially engineered situations, such as civil unrest or stock markets, are driven by the same dynamic as other organic and inorganic instances in the natural world, such as earthquakes, extinctions, and so on. Indeed, to support this assertion we could turn to earthquakes as an example which demonstrates that a simple power law exists with relation to magnitude of quake verses regularity. Mark Buchanan writes:

In terms of energy, it turns out that the Gutenberg-Richter law boils down to one very simple rule: if earthquakes of type A release twice the energy of those of type B, then type A quakes happen four times less frequently. Double the energy, that is, and an earthquake becomes four times as rare (Buchanan, 2000, p 38).

And a similar power law to this seems to appear in the manifestation of wars between states. The physicist Lewis Richardson studied wars between 1820 and 1929. Within his selected measurables of the regularity of conflicts verses number of deaths, he found that the same Gutenberg-Richter law underpinned war. Thus, as Buchanan notes, 'every time he doubled the number of deaths, he found that wars of that size became four times less common' (Ibid, p 191). Compare this with⁷⁸ 'Alexander von Oettingen's influential work on 'moral statistics' during the 1880s, [which] underscored that human beings were simply behaving as herd animals.' (Emdem, 2014, p 191). This work was one scientific study that may have influenced Nietzsche and the development of his ideas regarding the 'morality of herds'. (Ibid). We can see how such statistical evidence in both inorganic, organic and human matters can lead us to postulate a fundamental dynamic that underpins life—within our human species and organisms generally.⁷⁹

⁷⁸ Here Emdem invites us to. "See Alexander von Oettingen's *Die Moralstatistik in ihrer Bedeutung für eine Sozialethik*, 3rd edn. (Erlangen: Deichert, 1882), which provided statistical assessments covering virtually every aspect of German society, from marital and extramarital reproduction, education, crime, disease, death, and suicide to religious confessions, sects and church attendance." (Emdem, 2014, p 191).

⁷⁹ This raises crucial questions about the extent to which a person can act as a free agent when their natures are directed by their will to power. I have already suggested that freewill can be construed as a contradiction in terms, with 'free' and 'will' seemingly incompatible with each other. Indeed, it is difficult to argue for a notion of freewill when we note that 93% of U.S prison populations are male. According to my argument, only two things inform the 'creation' of a human being: genetics and environmental feedback—or, what has been popularly termed 'nature and nurture'. My point here is to draw attention to some of the difficult questions one can ask of freedom in relation to will, when we consider a will to power as the fundamental drive of all organisms and of life itself.

Corning references the work of Leslie White who was inspired by thermodynamics, and the 'central role of energy in biological processes'. He advanced the thesis that,

energy capture has been the prime mover of cultural evolution (via technological improvements and the acquisition of information). He called it the Basic Law of Evolution: "Culture advances as the amount of energy harnessed per capita per year increases, or as the efficiency or economy of the means of controlling energy is increased, or both."⁸⁰ (Corning, 1983, p 218).

12.4. The Importance of Interactions in Power Dynamics.

When energy usage increases it involves an increase in power. Corning's hypothesis highlights the complex interaction of functional parts and the interactions of these parts with the outside world. He uses the example of the rebuilding of Japan's post-war economy to show how many 'causes' go into the 'effect' of creating an industrial monster from the ruins of the second world war, and tells us:

In a deep sense, Japan's success is a corporate (systemic) phenomenon: It derives from the combination of a functionally compatible set of cultural values and traditions, advantages in the economic marketplace, and a highly intelligent set of societal development strategies that its leaders have assiduously pursued for many years.

The Japanese juggernaut is rooted in deeply ingrained cultural values: self-discipline; frugality; strong family life; individual subordination to corporate, community, and national interests; emphasis on co-operation and the conciliation of conflicts; economic and political pragmatism; a reciprocal loyalty between management and labor that can be traced to Japan's feudal past; and a co-operative relationship between government, business, and labor. (Corning 1983, p 236).

These many pieces came together to establish a synergy that was incredibly efficient, and in the process the Japanese were able to appreciate and understand the system as a whole, without focusing on its particular parts. Corning later continues:

⁸⁰ L. A White, "Energy and the Evolution of Culture," *American Anthropologist* 45(1943): 335-56, *The Science of Culture: A Study of Man and Civilization* (New York: Grove Press, 1949), and *The Evolution of Culture* (New York: McGraw-Hill, 1959).

For the Japanese appreciate that both efficiencies and inefficiencies can have multiplier effects. When a commuter train that carries 400 passengers to work is 15 minutes late because of a malfunction that would have required one man-hour of preventative maintenance to avoid, with the result that all 400 passengers are 15 minutes late getting to work, the combinatorial effect is a net loss to society of 99 man-hours of productivity. (Corning 1983, p 237).

If we compare this scenario to the autocatalytic cycle that I examined in Chapter One (which revealed that any changes in the system will either enhance the system toward greater power or toward possible extinction), we can see why having the right people in the right roles becomes functionally important for a society to succeed, and that any bias—such as nepotism or class advantages—will become socially self-destructive. This type of bias are equivalent to societal ‘evils’, in so far as they will decrease the functional efficiency (power) of the society. This complex interactionalism of world processes is probably the most overlooked phenomena in scientific and academic study, and that is probably because it is so expansive and complex to measure. Nevertheless, there is a tendency in our behaviour to try to find a single cause for an event, such as someone to blame or praise, and we tend to forget or ignore all the factors acting upon that person—this is perhaps most evident, I claim, in our judicial system, which seeks to blame and punish the individual, rather than appreciate the genetics or society that influenced the individual’s actions. Every human person is a composition of effects and causes—arguably a confluence of energy in a sea of determining factors, which seek, where constraints allow, their highest expression of power or their best course of action for the highest status attainable. These ‘constraints’ will also include other competing individuals for social status. As Corning concludes,

As the process of cultural evolution intensified by means of teleonomic selection and natural selection for cultural abilities, the internal social environment came to play an increasing role in the evolutionary process in at least three ways. First, it created a framework for pooling and utilizing individual abilities, skills, and ideas, including the innovations of the occasional ancestral “genius,” for whom ethologists have documented animal analogues. Second, it created a medium for aggregating socially accumulated knowledge, technology, and skills that could be exchanged and transmitted to successive generations. Third, the social environment itself created an internal selective screen that favoured certain cultural and biological improvements. Thus the conversion of a social aggregation into a goal-directed polity required the evolution of social structures. (Corning, 1983, p 293).

Note here how the social structure evolves slowly as it helps create and incorporate the 'genius' and although co-operation is key, it is not a 'herd-like' structure blindly following a solitary leader. We can see how social norms or 'morals' would also slowly evolve out of the system to form laws and rules. Disease could be prevented by certain social practices to do with cleanliness and sexual practices, which may become the basis of a 'moral' code or 'law'.

12.5. Longitudinal 'Moral' Relativity.

These 'morals' would change with time giving us a form of 'longitudinal' relativity in morality. For example, when ships were constructed of wood we might have expected ship-faring societies at that time to adopt certain 'moral' principles or practices related to their important ship-related activities, such as the insistence that people ought not to carry matches in case they start a fire in the dockyards. They would subsequently inculcate laws with harsh penalties for transgressors of these laws, given that the loss of a naval vessel or navy would be catastrophic for the society in question. But as ships gradually became metallic, the threat of inadvertently catching fire became obsolete, and by the same token, the moral imperative not to carry matches in dockyards became obsolete too. Likewise, our behaviour during disease pandemics has changed to match the perceived threat to our societies and to the individuals who comprise it. The constant changes in the world and within society will require laws and social values and norms to be modified and updated accordingly, so as to remain relevant.

12.6. Lateral 'Moral' Relativity.

A second form of 'lateral' relativity in morality comes from the different environments people evolve in. A tribe or people raised in mountainous areas would have different constraints and threats upon their status compared to a people evolved in forests so we would expect to find different 'cultural' moral norms. It is now time to conclude all of the science surveyed so far comprising 'The Power Theory of Morality'.

Chapter 13

Conclusion to ‘The Power Theory of Morality’

The first half of this chapter will outline my conclusions for a scientific basis to ‘morality’, which addresses, thermodynamics, evolutionary theory, psychology and relevant social science and constitutes what I have called ‘The Power Theory of Morality’. The second half of this chapter will address Schroeder’s (2017) challenges to evolutionary ethics to respond to them and to ascertain whether my theory can adequately meet them, in addition to the metaethical questions I posited in the introduction.

We cannot know the nature of reality ‘in-itself’, but we can and do know it ‘phenomenologically’ by our perceptions and experiences of it and the rational framework we subsequently apply to this. I have employed the notion of ‘the will’ as the fundamental nature of reality and the drive of ‘existence’ itself, of which we are, of course, part. My analysis of key findings from the research into thermodynamics revealed there is a natural purpose and direction that underpins the natural world, which is directed to the dissipation of energy gradients. This also revealed that, where possible, ‘nature’ will try to organise itself to maximize the power in the system and to entropy production. This system of organisation includes the ordering of atoms into constructions of greater complexity—a complexity that I have called a ‘synergy fractal’.

These dissipating, autocatalytic constructions, or cycles, apparently tend to amplification, because any degradation of a complex arrangement often leads to its extinction, thus selection takes place within the cycle. One widely accepted hypothesis within current evolutionary thought is that these cycles were the beginnings of ‘life’ as we know it, with the development of a ‘self’, which embodies its own cause and effect—a self that I have referred to as an ‘Autonomous Bio-Chemical Autocatalytic Dissipater’ or ABiCAD. This self ‘strives’ to sustain itself and to increase its power in the overall system by means of replication. Continued existence becomes the ‘prime value’ or motivation of the ‘self’ by means of force. Selection and replication, competition, co-operation and mutation are various methods it employs to achieve its aim of greater power. These processes eventually led to the first genes, cells and unicellular organisms. My evolutionary findings have revealed that the ‘drive’ toward more complex organisms is not a drive to fitness (after all, a unicellular life form is just as ‘fit’ if not ‘fitter’ than a human organism), but a drive to power. This drive or will

to power is compatible with the second law of thermodynamics, and the maximum power and entropy principles.

The natural world would seem to be in the ongoing process of building the largest dissipater it can, in the form of the biosphere and its respective eco-systems; it is not necessarily aiming to embody the fittest organism or variety of organisms that it can. Natural selection operates within and between the different 'trophic levels' with environmental feedback always 'sculpting' and providing constraints on what can survive, which is forever changing. Power often correlates to fitness, for only those things which can survive will survive, and the 'drive' toward more powerful organisms is a dynamic competition between organisms. All organisms need to be able to affect causation as they are all expressions of power. Thus 'the will' of life as the will to power is akin to Nietzsche's conception of 'will to power'. In so far as it is the drive that underpins all drives and that which combines and directs human behaviour. It is, as Nietzsche puts it, the 'root force where a harmonious system is constructed through the compelling domination of this living centre (UM, III: 2); it is the 'central organizing power', the 'power of adaptation' (BGE, 242), and 'the strongest instinct' (TI, 'What I owe to the Ancients', 3).

The second manifestation of the will to power in natural selection seems identical to the first in thermodynamics. The thermodynamic and evolutionary science certainly chimes with Nietzsche's notion of the will to power as the underlying and unifying force, given the apparent presence of a fundamental 'drive' of nature which values organisms or groups of organisms according to the extent to which they can master their environments. Initially, only power evaluations are possible within nature, with evaluations of causal influence from the environment and functional degradation in the ABiCAD. The 'genetic code' of organisms is that which perpetuates and changes over time in conjunction with environmental feedback, mutations and functional synergies. Physical phenomena or organisms are in themselves quite ethereal—they constitute a 'flow' of energy and transformations of energy that work in accordance with biological information or 'code' within the DNA of the organism. One of the key debates in evolutionary biology surrounds the question as to what an adaptation is 'good' for? Or to what good does it aim? If only the genetic 'code' survives, this question seems almost absurd or a moot point, especially when we note that the 'code' itself changes in conjunction with environmental 'constraints'. Once we have taken this into account, what we are left with, is the bare idea of 'existence' itself or, as I have argued, 'the will to power'—this is, I contend, the 'good' to which natural evolution aims and is directed by. Physical

‘forms’ or organisms are thus, fleeting expressions or embodiments of this will to power — like temporary patterns in a continuously changing kaleidoscope—and this will include us, as human beings.

We must embrace the rather obvious conclusion that, from ‘nature’s perspective’, the ‘good’ comprises an efficacious atomic arrangement—one that provides both the greatest dissipation of energy and the largest production of entropy. The ‘good’ is achieved by nature when it realises the most powerful entity it can construct within given constraints. In this context, from a human perspective, we might consider the continued existence of the human genome as the ‘prime value’, of highest ‘good’. It is not unreasonable to assume that when these two possibilities align, a human super-organism might well be achievable, one which embodies the greatest dissipater of energy possible within given constraints. On this basis, I wish to argue that ‘morality’, grounded in the will to power, aims toward this possibility. Power seems to underpin the moral judgements.

Power is thus intrinsic to the natural needs of the organism, to ensure its continued existence, and to meet its homeostatic needs by replicating. Many organisms have developed mechanisms to guide it towards environments that help to increase or to maintain its power status, and, by the same token, to lure it away from environments that could have the opposite effect by decreasing its power status. This fundamental need constitutes the foundation for an organism’s internal representations or ‘feelings’ in relation to others and to environments more generally; they incorporate the organism’s ‘senses’, as well as memories, emotions, and eventually—as evolution unfolded—the incorporation of rationality and imagination. These are the components of that which we call ‘mind’, and which are provided for by the brain. In early individualistic, non-social organisms, the mind only dealt with the ‘selfish good’ of the organism, which is to say its individual power and status. As sociality began to develop through genetic mutations and/or functional synergies (via co-operation coupled with empathic adaptations to the emotional part of the brain/mind), the relationship with other organisms will have triggered emotional motivators to help facilitate the organism’s power (for instance, through sexual selection and ‘kin selection’). This sociality will have created greater power in the altruistic, co-operative group, and, in doing so, it will have improved the fitness of the organism and its group, compared to its competitors and prey. With groups becoming more powerful than individuals, some species came to work almost exclusively in groups.

The 'jump' from individual to group is where 'morality' as we understand becomes evident. It is in this transition where a person develops the capacity to meta-represent and to develop feelings toward others or the overall groups, initially through embodying, what we would call a 'theory of mind', which includes the capacity for empathy, and later rationality. In this transition, we begin to see ourselves, not only as autonomous individuals, but as a member of the larger social organism. The social organism is important to our individual survival, and so the need for 'duties' on the part of the individual arises, and, similarly, the power/status of the social organism and the individuals who comprise it are also considered. As I explained how our human brain has at least two interrelated parts which manage our evaluations of power/status evaluations: one concerned with the individual's instinctual needs, and the other, concerned with the groups or 'social organisms' we identify with.

Accounts of evolution show us that co-operative groups can be exploited by 'selfish' individuals, even at the genetic and microbial level. In human society, such exploitation occurs by those who pretend or appear to be altruistic, but are actually prioritising their individual power/status. I concluded that those who have certain personality disorders, such as psychopathology, were at the extreme or 'ultra-selfish' end of the 'morality spectrum', and those at the other end of the spectrum, such as those with Asperger's and Autism, embody the 'systemised' rule following approach that is required for a 'social organism' to function well. The development of the capacity to organise and systematise thereby functions to restrain the selfish instinctual desires of the individual in favour of the cohesion of the group. This clearly indicates the presence of the evolutionary 'synergy fractal' which moves the organism toward the next level of power/status. The human organism is therefore in tension between autonomy and a functionary within a greater system, and from this tension a new 'form' of the social organism is born.

I have presented a hypothetical 'morality spectrum' which is formulated on the basis of fundamental tenants of psychological theory in relation to the power/status of either individual or group. It is on the basis of these fundamental accounts that I have presented, what I regard as the dichotomous political spectrum of 'right' and 'left' positions, with the left associated with the social group, and the right associated with more selfish and individualistic concerns.

The development of rationality/systemisation in conjunction with imagination establish a forward planning faculty within the organism, which aims to look for patterns in the

environment. It is from this pattern-forming faculty that the organism is able to derive various principles and new 'morals', which are designed with an evolutionary concern to maintain our existence, and to maintain our power. This capacity to formulate principles on the basis of our experience is a key part of the third manifestation of the will to power. An example of this would be the formulation of environmental morals. Thus, in my model, every person lies somewhere on the 'morality spectrum', and their position on it can be updated through the lessons learnt from environmental cues. Indeed, as I argued, learning from the environment is fundamental to morality itself. 'Morality' for humans is a circular process in so far as our emotions motivate our behaviour, and inform our rationalised values, and, following on from this, our reasoning will update our behavioural motivators through the acquisition of new learning and reasoning. In this respect, the development of morality has a feedback loop.

In a world of continually interacting power relations, notions of 'good' and 'bad' are ascertained on the basis of whether a given organism is gaining or losing status. The moral good in my model expresses the occasion when an organism reduces its status for the increase or preservation of status of another organism or its group. 'Evil/bad', by contrast, describes occasions when the individual takes power/status away from others for their own selfish ends. The individual, embedded in many different interacting social groups, such as family, state, companies or organisations, will experience many competing status/power relations, which will often give rise to 'moral' (power) dilemmas. It is important to note that groups or social organisms, too, can compete with each other, giving rise to a 'higher' level of selfishness (groupishness). For instance, we find states or countries competing for power and status on a global platform, and in this respect, 'patriotism' can be regarded as a form of groupishness. At this level of power, competition between such large organisations would likely result in far greater 'evils' on a mass scale, such as war and genocides. By the same token, there is the potential for greater 'goods', such as overseas aid, disaster relief, and provision of asylum for threatened peoples. Therefore, rationality, I suggest, indicates that the chances of survival are enhanced through co-operation to form groups, and to view the human species as a group as a whole. And this, I claim, is the ultimate direction of the 'synergy fractal'—it involves an evolutionary drive toward what would be the most powerful social organism. In so doing, it would provide the most efficacious environment for the proliferation of the human genome.

Even if one becomes 'systemised' or integrated into a social organism such as a state, 'evil' is not necessarily addressed or overcome for the reason I suggest above. Milgram (1974)

shows how the demands of the social organism can also by-pass our empathy for others, as we become ‘agents’ of that group instigating the wishes of a perceived legitimate authority, and are given by the authority a function to perform. Both Milgram and Zimbardo (2007) showed us how influential this ‘role-taking’ can be on the human psyche, as it changes an individual’s behaviour in ways they could not predict. Keltner (2017) also showed us the ubiquity of power relations in life and how power can affect people. Here we find that powerlessness equates to anxiety and depression, and whilst power can make people happier it can also move them mentally toward the selfish end of the spectrum.

Baron-Cohen (2011) pointed out how important empathy is in the avoidance of ‘evil’, and my analysis has shown that empathy has to be eroded for a social organism to function, while altruistic punishment is required to deter ‘cheaters’. In these scenarios individual judgements of good and evil have to be ‘over-ridden’ and entrusted to a functional sub-group of the social organism: the judicial system. Both Milgram and Zimbardo show us the importance of the authority in a powerful social group.

Given that it seems adaptive for humanity and individual states to avoid destructive ‘groupish’ conflicts, reason, I suggested calls humans to find their allegiances beyond sub-groups at a regional or ‘national’ level, to a global level. Resources, I contend, need to be globally managed to avoid ‘groupish’ sub-group competition and conflicts. This requires an authority governing for the course that is most likely to continue the existence of humanity. Clearly humanity is still a long way from such a scenario, but coalitions and organisations such as the *United States of America*, The European *Union* (E.U) and the *United Nations* clearly demonstrate in their name and remit that there is a ‘direction of travel’ away from individualistic, competitive states. At the time of writing, ‘Brexit’—the extraction of the United Kingdom from the E.U—is causing massive division amongst the country, and I wish to argue that this could have been predicted from the ‘morality spectrum’ that I have presented, and those who favour greater social integration in contrast to those who favour individualistic power at the national level, with its expression of ‘groupishness’. Accordingly, such groupish behaviour is akin to an immoral approach, and represents a backward step toward the nationalistic conflicts that dominated the twentieth century.

I explained earlier that if a cell takes too many resources for uncontrolled replication in a multicellular organism, it is a cancer. So, too, in a group. Thus, if one individual consumes too many resources it will act as a cancer for society as a whole, and if a nation or group of

nations consumes too much it will, similarly, lead to conflicts and the possible extinction of humanity. When one part of an organism takes too many resources from the organism, the life of the organism is threatened and will likely fail to function and will die. This has obvious consequences for the human species, and perhaps it has never been so pressing a situation as it is now. Too much power and resources—usually in the form of money and property/land concentrated into too few hands—can become a cancer to any social organism. Again, we find in this scenario that the pursuit of individual status conflicts with the pursuit of continued existence.

‘Moral’ authority, I contend, is tied to intended actions which are in accord with the continued survival of humanity in general. Such authorities will need to consider our natural environment, our planet and its eco-systems, and other creatures, bringing them into our ‘moral’ consideration. The biosphere is a construction of nature, it supports the life-forms in it. Too much damage/change to the biosphere changes the constraints in the system, though it may become impossible to support certain parts of the eco-system and, as such, the ‘trophic pyramid’ may collapse to lower levels of power and energy dissipation, as happened it is thought, with the dinosaurs.

Identifying the information necessary to act in accordance with this moral principle requires high levels of learning and research to ascertain what actions will correspond to that requirement, we can see why Plato advocated ‘philosopher kings’. ⁸¹ Ultimately, I claim, a rationality which is aimed at continued survival or existence defines ‘morality’, and updates our emotional brain in the process. What took evolution perhaps a billion years to ‘hardwire’ into the emotional system of organisms, can be done, I contend, by the learning part of the brain relatively quickly.

My ‘power theory of morality’ simply states that all moral judgements are judgements of power/status relations, and ultimately, the ‘moral’ thing to do aligns the construction of the most powerful organism possible with the ‘prime value’ of continued existence. This translates for humans as actions and behaviours that maintain or improve the continued existence of humanity. This, I claim, is the foundational moral principle. If we were to start arguing about what ‘kind’ of human we would want to survive into the future, we would have to consider natural selection and evaluations of what kind of human *can* survive into the

⁸¹ See Plato’s *Republic*. 471d-501c

future. This conception will inevitably involve us considering the formation of the most powerful human organism—a superhuman-organism—which works with itself and others for the survival of humanity. Once this organism has been established within society, we would have, what I would argue, is the beginning of an authentic civilisation, where there are no internal power struggles between separate ‘socialisations’ or groups of humans. Clearly such a possibility is not realisable any time soon, and it would require more than a political movement to realise; it requires something akin to a ‘religious transformation’ experience of the whole human race, a ‘conversion’ on a mass scale, or collective ‘revelation’—it would involve something akin to a Nietzschean ‘revaluation of values’,⁸² for all humans to move from selfish desires to a far more allocentric sociality.

The purpose of my research is to try to solve what I called the prime ethical mystery (PEM) with an appeal to naturalism, and thus to respond to the question, what is the ‘substance’ or ‘relation’ upon which judgements of good, bad/evil and morality are based? The answer, I have argued, is *power*. And I have defined power as the ability or potential to cause an effect—a definition, which is compatible with accepted definitions in physics (work achieved divided by time, with work essentially being energy transfers). Morality, and indeed the whole universe, is reduceable to energy transfers. Thus, my *prima facie* definitions of ‘good’, ‘bad/evil’ are:

Good is ‘intended behaviour by an individual or group that increases the status of another individual or group while decreasing the status of the actor’.

Bad/evil would therefore be ‘intended behaviour by an individual or group that decreases the status of another individual or group while increasing the status of the actor’.

It should be noted that there are always going to be energy transfers of one kind or another, such as contributing your power and energy to a collective effort or to helping someone else. This is a superficial definition, as at least three other factors also come into play. Firstly, by contributing to a powerful ‘synergistic’ collective enterprise, the overall status of the contributor will actually increase. It may seem superficial or ‘myopic’ to claim that your status decreases when you pay tax, however with the contribution your taxed money gives to security, hospitals, better infrastructure, social amenities (such as sports centres and

⁸² This revaluation is something that concerned Nietzsche from his middle period onward but becomes most manifest toward the end of his productive life with his proposed ‘Magnum Opus’, *The Will to Power, An Attempt at a Re-Valuation of All Values*. (Hill in Nietzsche, 2017, p xi).

libraries, schools), and so on, the 'energy transfer' you contribute gives rise to increased status for yourself and society. Secondly, an entity could just deliberately decrease some other entities status for fun, or just because they can, with no obvious increase in status. Perhaps even losing status in the process. Here we might even like to make a distinction between bad and evil. Where bad refers to my previous definition where at least the bad person gets a status increase, but here evil refers to where there is no status increase for either, just a purely psychological joy or 'schadenfreude', a rise in hubristic pride or self-esteem at the degradation of another. Thirdly, when we push our moral definition to its logical conclusion, humanity working together as one global organism, preserves the ecosystem that supports it, and this notion contributes to my need to redefine the moral good as 'intended behaviour that brings about the best chance of the continued existence of humanity'. As mentioned in the introduction I am not too concerned with definitions especially within such a monumentally complex and intertwined subject area. I see the above more as 'stakes in the ground' rather than a full delineation of the area. I am more concerned with providing an explanation for the phenomenon of morality. Which of course comprises the above.

The essence of good has humanity staying attached to the 'tree of life', and as such it is free to evolve and avoid extinction. This is both an obvious evolutionary conclusion, and a conclusion derived from the will to power which seeks to create the largest dissipater possible—and an enlightened humanity will find the most sustainable way to convert the maximum amount of energy to sustain and improve the quality of all lives without its ecosystem collapsing. Selfishness or 'groupishness' cannot achieve such an outcome.

We are going to face more pandemics, famines, massive volcanic eruptions, meteor strikes, perhaps alien invasions and who knows what else, and if we maintain our current 'myopic' nationalistic, 'groupish' attitudes toward each other, these natural and predictable events will lead to infighting, mass migrations, starvation, wars and potential extinction. It is up to us to make sure we can cope with them as one race, one species, one humanity. This seems the inevitable conclusion from the will to power, evolution and the emergence of 'morality'. It gives us the necessary power to continue our existence. I will now turn to Schroeder's challenges for evolutionary ethics.

13.1. Schroeder's (2017) Challenges to Evolutionary Ethics.

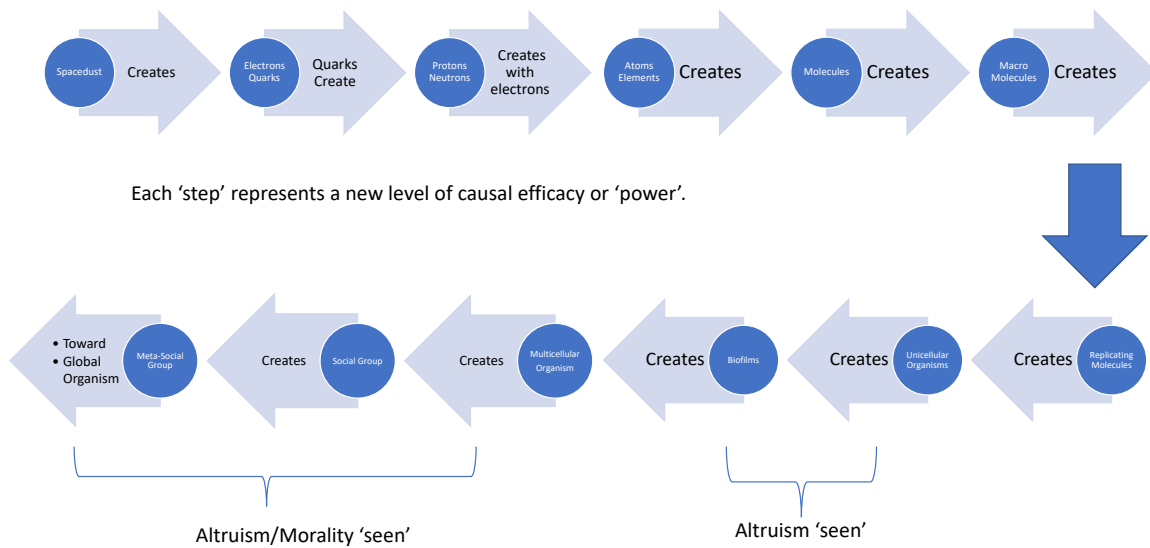
Although my research did not focus purely on evolution, the conventional challenges to evolutionary ethics are useful for me to consider when evaluating some of my essential claims. I shall therefore turn to Schroeder's (Ibid) primary challenge and to her six other notable challenges to evolutionary ethics.

Schroeder asserts that, '[t]he challenge for evolutionary biologists such as Wilson is to define goodness with reference to evolutionary theory and then explain why human beings ought to be good' (Ibid). I have addressed this challenge in Part One of my thesis, and the principal reason why I needed to examine the nature of evolution with a 'bottom-up' approach. To understand 'life' as essentially an ABiCAD—as a replicating collection of functions—is to place the need for continued existence and power/causation at the heart of my theory of morality. Thermodynamics, evolution and the 'synergy fractal' all support Nietzsche's view that a 'will to power' underpins human behaviour and life itself. In my theory, power and status are the very foundation upon which judgements of 'good' and 'bad' are established. As sociality evolved, so have our judgements of power/status, which have correspondingly changed to include others or the group, of which the 'others' are like functional 'cells'.

Selfishness and co-operation/altruism become different sides of the same 'will to power' as I conceive it. Co-operation/altruism necessitate behaviours that lead toward the establishment of a social organism—to another 'leap' in power on the 'synergy fractal'. This was also seen at the 'leap' from 'genes' to cells, the leap from unicellular to multicellular organisms, and the individual organism to the social group in multicellular organisms. This then gave rise to our 'morality' (see Fig 5).⁸³ As I have argued, goodness or the moral good in this scenario is the intention to use individual power/status for the benefit of the group. Because power is greatest with greatest potential for destruction when it arises in group competition and group conflict, reason dictates that humanity and the human genome should be the ultimate group under consideration. Thus, the continuation of humanity becomes evolution's answer to why we ought to be 'good'.

⁸³ I have used a fictional substance 'spacedust' to stand for a foundational 'particle' of energy. I could have used 'dark matter' but I don't want to confuse my model with other physics theories. It does not need to be true in order for the model to be understood.

Fig 5: Model of Synergy Fractal



Arguably, there are two problems in this account, one metaphysical and one practical. The metaphysical problem is that the human genome and subsequently human organism will change over time, and correspondingly, the 'good' is also subject to evolutionary change. Secondly, the practical problem can be formulated as the question: how do I know which actions will contribute to the survival of humanity? The practical problem consists of at least four barriers to 'knowing' what the moral course of action is. They are as follows.

- A) The problem of chaos: The universe is a continual flux of power relations, being able to predict all the outcomes of an action are impossible. Your 'good' intentions may well lead to 'evil' outcomes and vice versa.
- B) The problem of ignorance. This is related to the first problem. Thus, even if you know what 'goodness' is, you still do not know what the 'right' course of action will be. Would the eradication of genetic disease, for instance, lead to greater chances of human existence? Or would it, perhaps, be part of a drive to a perfection of humanity, which in turn leads to divisions in society or to the evolution of a less empathic/caring human, ultimately leading to its demise? You can never have all the relevant facts to make the correct moral decision.
- C) The problem of obedience. As Milgram showed us, being part of a social system or organism means the outsourcing, to some extent, of our moral judgement, and relying on others to provide the 'moral knowledge', or 'greater good'.

- D) The problem of competence. As we saw in Chapter Ten, not all humans have the mental capacity to follow rules and understand the necessity to behave in accordance with any moral rule we might formulate.

Problems B and C can be addressed to some extent by the instigation of a 'legitimate' authority. The nature of this authority must be concerned with the ultimate moral principle: the continuation of humanity. The more information and knowledge we have of the world, the greater chance of our understanding of what helps us survive. Overcoming the practical problem therefore requires significant information and cognitive effort to focus all our moral decisions on what is required for the continued existence of humanity. Perhaps a more manageable 'rule of thumb' is required, such as the 'golden rule'.

'Evil' in this scenario is apparent in the intention to increase one's status (selfishness) to the unwilling detriment of others or the group, and this, I have argued, ultimately results in a reduction in survival chances for humanity. This phenomenon is also fractal and applies at all sub-levels, including the level of nations.

My 'Power Theory of Morality' presents a fully naturalistic account of metaethics, based on evolutionary principles and thermodynamic laws and principles. Power and status is the 'wood' of which the 'the tree of the knowledge of good and evil' is made. 'Morality' is recognised and evaluated according to assessments of status relations. And our continued concern for morality as the 'tree of life' becomes the ultimate foundation for morality, as it reflects the 'status' of humanity as a whole, and its chances to perpetuate. Thus, our rationalisation of morality develops as a pursuit of moral knowledge. It is important to recognise the distinction between the pursuit of individual power/ group power and the pursuit of continued existence through a pursuit of knowledge or truth.

This theory also sheds light on other philosophical concepts such as risk, trust, respect and freedom. Risk in this context involves a situation that gambles or trades a possible status drop for a chance of a status increase. Respect in this context involves recognising another's status as at least equal to you (while disrespect, by contrast, involves not recognising others as at least equal in status to you). Trust in this context involves placing the power to influence your status into the hands of another. Freedom in this context involves your ability to affect causation in the world; that is to say, your power. Restrictions to your power would involve, for example, being part of a group that seems to curtail

individual freedom, but which opens up new avenues of freedoms due to the facilitation of synergies. For example, one is only free to compose music or write novels, if all the basics of life have already been provided by others, such as food, shelter, energy, etc. So, the quality of life and freedoms in life have an overall increase rather than a decrease when we are part of a social organism.

Schroeder (Ibid) raises six other challenges for evolutionary ethics ⁸⁴, to which I will now elucidate and seek to answer through my model of morality.

- 1) How can a trait that was developed under the pressure of natural selection explain moral actions that go far beyond reciprocal altruism or enlightened self-interest? How can, for instance, the action of Maximilian Kolbe be explained from a biological point of view? (Kolbe was a Polish priest who starved himself to death in a concentration camp to rescue a fellow prisoner). (Ibid).

An adequate response and answer to this, I contend, lies in the balance of input to our conscious mind, from our social brain and our selfish brain. Both have influences on our human emotions and subsequent behaviours. We all lie somewhere on the morality spectrum, just as psychopathic behaviour can be explained by a lack of empathy, behaviour of those with highly socialised brains will involve self-sacrificing actions for the benefit of others and the group. Sacrifice for what we perceive as the 'greater good' of the group is endemic in nature, even as I have shown, at the level of biofilms, thereby suggesting that this behaviour has strong evolutionary roots. If individual sacrifice contributes to the group's survival and perpetuation of the appropriate genes—as it appears it does—then evolution explains self-sacrifice for social reasons. Power theory gives the further explanation that our psychology is about power not fitness, suicide in this case is an act to try to influence others. This is not uncommon, self-immolation and hunger strikes have often been used as last desperate attempts to try to influence or manipulate others.

Schroeder's (Ibid) next challenge is as follows.

- 2) Could not human beings have moved beyond their biological roots and transcended their evolutionary origins? In which case they would be able to formulate goals in pursuit of goodness, beauty and truth that 'have nothing to do directly with survival, and which at times militate against survival'. (O' Hear, 1997, p 203).

⁸⁴ Schroeder, D 'Evolutionary Ethics', Internet Encyclopaedia of Philosophy, retrieved 30/3/17, www.iep.utm.edu/evol-eth/

Firstly, it is important to note that this question suffers from the PEM, which is to say, until we know what you mean by goodness and beauty, we cannot be in a position to know if we can transcend our evolutionary origins in order to pursue them. If goodness and beauty are not derived from evolutionary origins, then where do they come from? This is a question that requires me to consider further questions before responding adequately to its challenge. There does not seem to be any evidence that humans have transcended their biological roots or their 'will to power', which seems to drive biology and human behaviour.

Secondly, the above thesis shows no 'transcendence' is necessary beyond our evolutionary origins, at least in respect of 'goodness', and I suspect, 'beauty', too. However, I contend that we do need to transcend our selfish instinctual needs to formulate goals from a global perspective.

The question of whether morality might one day become 'unadaptive' is a very intriguing one, and it would require analysis beyond the scope of this thesis to address in full, but based on evolutionary principles, the answer would seem to suggest that it is a possible scenario. Evolutionary theory allows for the fact that certain adaptations at one point in history may well become unadaptive at other times, as the environment changes. For example, if we became 'supermoral' and relinquished all weapons to live in harmony with each other, we may become 'food' for an invading alien race with no means to defend against them. There are probably other more 'down to earth' examples of morality becoming unadaptive, but based on the theory I am proposing, the moral thing to do will ultimately be in line with the adaptive thing to do, and so this question is itself a moot point. Humanity can still derive its own non-evolutionary values for itself, but it will first have to make sure it can continue as a species.

Schroeder's (Ibid) next challenge is as follows.

- 3) Morality is universal, whereas biologically useful altruism is particular favouring the family or the group over others. "Do not kill" does not only refer to one's own son, but also to the son of strangers. How can evolutionary ethics cope with universality?

I have endeavoured to provide a metaethical theory to support the hypothesis that morality is universal. My research and the contents of this thesis is an attempt to show how evolution is based on the continued existence of a genetic code that seeks to actualise a 'will to power', and this will to power is, I claim, the universal principle which constructs ABiCADs and their

continued existence becomes the 'prime-value' by force upon which morality is founded. The 'synergy fractal' shows us how morality should be applied at the level of the genome and to humanity itself. It subsequently encapsulates universality while also explaining its relativity. The universal moral principle of continued existence of the organism is what guides the relative moral facts in an everchanging world.

Schroeder's (Ibid) next challenge is as follows.

- 4) Normative ethics aims to be action-guiding. How could humans ever judge an action to be ensuring long-term survival? (This is a practical rather than conceptual problem for evolutionary ethics).

My argument addresses the nature of morality, what it is and how we recognise/judge it. I have already acknowledged the practical problem of knowing what the 'right' thing to do is, and that considerable and continual knowledge acquisition becomes a necessary part of morality itself, to enable us to update what the 'moral' thing to do is. Consider, if you will, hose-pipe bans and the 'moral' behaviour surrounding them. The facts about moral behaviour in this situation change but the moral principle of an equal share of water to survive does not. We can never be sure that an action will lead to long term survival due to the problems of ignorance, and chaos that I discussed earlier. We can only make the best rational decision from the information available, thereby suggesting that authorities need to be knowledge-seeking organisations that inform people of their findings.

Recently this kind of thinking was employed in reactions to the coronavirus outbreak. Actions which preserved life were prioritised over economics and freedom; here the 'moral' thing to do was to stay indoors away from others, and when leaving the house for essential provisions, to wear a mask and to try to be at least two metres apart from others. These rules were suggested by 'experts' so as to ensure the health system had a chance of coping and to slow the spread of the virus, thus preserving human life. Of course, it may be the case that the virus will mutate to deadlier forms, and that only those who originally contracted the less deadly version may have an immunity from the deadlier form. On the basis of this scenario, the original decision and instructions to people could be regarded as potentially immoral—a notion which again highlights the problems of ignorance and chaos.

Schroeder's (Ibid) next challenge is as follows.

- 5) Hume's 'is-ought' problem still remains a challenge for evolutionary ethics. How can one move from 'is' (findings from the natural sciences, including biology and sociobiology) to 'ought'?

Responding to this challenge is simple: if you want the human race to survive, then you ought to behave in a way that is conducive to its survival. 'Oughts' are brought about by desired goals. Imagination is part of our evolved 'forward planning' cognitive hardware, which is employed specifically for this function, of envisioned goals. Whilst nature itself has no 'oughts', just brute existence, and a 'will' to dissipate energy gradients, those organisms that exist within it will have to behave in a way and be made of a substance that can exist effectively within it. 'Morality' has evolved, and its function is to contribute to the existence of the form(s) or organisms that employ it. This is driven by the will to power and is achieved through the recognition of potential or actual status changes. Thus, '*Is* that a trolley coming down the track I am standing on? If I wish to survive then I *ought* to get off the track'. '*Is* the greed and selfishness of some or all polluting our seas and causing overconsumption of resources potentially leading to an increase in likelihood of our extinction? If so, then we *ought* to adapt our behaviour, our systems, our governance, our ideologies, and so on. These have a similar logic structure to 'If/Then' computations.

Schroeder's (Ibid) next challenge is as follows.

- 6) Similarly, despite the length of time that has passed since the publication of *Principia Ethica*, the challenge of the 'naturalistic fallacy' remains.

Despite its dominance over the twentieth century, the 'naturalistic fallacy' is not considered the viable challenge that it once was. See for example, the challenges it faces in any modern 'introduction to metaethics' book. I have argued that good and bad, at least in respect to function and morality, are reducible to evaluations of power/status and are not therefore 'simple'. I therefore believe Moore (1903) to be wrong in his analysis of good and that the 'naturalistic fallacy' is predominately concerned with problems of definition in language not explanations for why the word exists at all. To end the discussion with the notion that 'good' is an 'intuition' is no longer acceptable, as we could always ask the question as to what our intuitions are based on and how do we get to have them?

13.2. Answers to Questions from Metaethics.

In the introduction to my thesis I outlined four questions that any metaethical theory needs to address in order to be acceptable. Let us now return to them with a view to responding to them according to my arguments.

- 1) What is the underlying 'substance' or 'thing' upon which moral assessments are based? This is what I called the prime ethical mystery or PEM. In order to answer this question, I had to show that any life form is fundamentally a dissipative system; that its autonomy is built on its own self-sustenance, and this requires feedback from the environment. All assessments of internal and external parameters are fundamentally about power assessments, either the functioning of the organism itself or things external to it that affect it. There is, I contend, nothing else. 'Good' and 'bad' evaluations in my model are thus always relational power evaluations. As the organism evolves, it becomes social and lives in groups, and this is developed through functional synergies via the organism's emotions and feelings, which take into account and incorporate others, so that, eventually, it is able to form abstract evaluations of group power in general, via empathy and rationality. Through further cognitive development, such as through systemisation and imagination, we gradually become more interdependent, and 'morality' is born when the intentions and behaviours that are supportive of the group and others are recognised alongside the 'immorality' of selfish acts that harm the group and others. I explored this and found it to be grounded in relations of empowerment and disempowerment. Expending individual energy/ resources which empowered others or the group was seen, according to my argument, as morally good, while empowering oneself at the expense of others or the group was regarded as parasitism and morally 'bad'. This could apply to any entity in a co-operating group.

Ultimately, morality, I argue, is founded on the principles that inform the continuation of 'life', and that will depend on contingent environmental factors, such as eco-systems; nevertheless, it will also be grounded in the universal factor of power being at the heart of life. The most energy an ecosystem consumes per unit time is the measure through which the universe undertakes and performs its 'work', under the second law of thermodynamics to achieve equilibrium in the world. Crucially, however, the universe itself cares nothing for humanity as a special species—the creation of the ABiCAD is the creation of something that

strives to continue, it is a new emergent phenomena, which grants meaning to evaluations of 'good' 'bad' and 'evil'. Global co-operation, I contend, would be a key marker to indicate most clearly the presence of this evolutionary and 'moral' direction. Indeed, global co-operation is, I claim, what is ultimately required to most efficiently ensure the continuation of our species.

The next question I posed in my Introduction is as follows.

2) How and why do we make these kinds of assessments?

This is my answer. The CNS has developed along with the organism to take information from the environment in order to sustain itself. The ABiCAD is a unit that is always trying to sustain and increase its status and avoid decreases. Feelings, emotions and 'qualia' in general are phenomenon that have emerged in the CNS to achieve this objective. This also extends into the social 'sphere'. The CNS is thus primarily a status evaluator, constantly assessing what actions are required to maintain or increase status and avoid losses of both itself and in others including abstract entities.

The third question I posed in my Introduction is as follows.

3) Are there universal facts or principles?

My answer is as follows. If we were to accept that moral principles are derived from the enlightened position that I have outlined—which is to say, that ultimately the moral thing to do is that which is most likely to achieve the continuation of humanity—which in turn, was derived from my moral definition of the 'empowerment of others' as the empowerment of humanity in general, then in any situation, there must, I assert, be a 'moral' fact of the matter (which may change in line with the moral principle). Knowing what this fact actually is, however, is another problem entirely.

The fourth question I raised was as follows.

- 4) Why does 'morality' seem universal but often appears factually to be subjective or relative?

My response is that the appearance of moral universality comes from the fact that any given group requires its members to abide by its norms if it is to function efficiently. These norms provide the universal outlook. Relativity is derived from various facts as follows. Firstly, different moral norms will apply to different groups due to the different environments they were developed in. Groups raised in forest environments will develop moral norms likely to incorporate different kinds of trees and survival requirements in response to their particular environments, compared to a group surviving on open plains and whose lives are dependent on the hunting of larger animals. Different kinds of things effect survival and hence status of the group. This I called 'lateral moral relativity'.

A second kind of relativity comes from the fact that the environment, including people themselves, are continually changing and adapting—what once seemed like a sensible moral norm or law becomes irrelevant. We are always learning new things about ourselves and our environments. Once upon a time, eating certain foods or entertaining certain sexual practices were likely to cause disease or social disruption and were thus outlawed, but as food preparation and understanding of pathogens improved, these norms became unnecessary. This I called 'longitudinal moral relativity'. Because of our moral principles, learning and education become a primary moral imperative. Our rational brain needs to update the emotional motivating part that establishes our values. Famines, over-population, disease pandemics will all bring about new kinds of moral behaviour, but all will be based around our moral principle.

Human societies, I contend, are in the midst of a moral transition—moving away from being orientated by selfish individual concerns, to more objective concerns which begin with nationalistic or 'groupish' outlooks and culminate in a more global attitude. There is no guarantee we will make it to a global organism and thereby sustain or continue our existence. Thus, moral relativities are also formed by groupish interests, with such moral attitudes as doing what is best for the state or organisation. This, however, is fundamentally a misidentification of where the ultimate moral principle lies. I have argued that it can only lie with the *whole* of humanity and *life itself*, for if

we focus only on the survival of a particular group of humans, we will inevitably open ourselves, as a species, up to conflicts which lessen our chances of survival.

With these questions answered, I have demonstrated that my theory is a valid metaethical theory. It is now time to turn to the work of Friedrich Nietzsche, the philosopher who first hypothesised a will to power in nature and gave it its name. And famously from this metaphysical principle on which we agree arrived at a different conclusion to mine for ethics, so I will need to compare and contrast his conclusions for ethics and morality with mine and analyse the reasons for the differences and try to ascertain which one of us, if any, is correct.

Part Three

Reconsidering Nietzsche's Metaphysics and Metaethics

Chapter 14

“Crackpot Metaphysics”

Given my scientific explanation of morality, it would be interesting to address its relationship to the notion of will to power presented by the philosopher, Friedrich Nietzsche, to whom I have already alluded at several points throughout my discussion. Given that the thermodynamic principle of ‘Maximum Power Production’ has been around since 1922, and that Darwinism with its cut and thrust of ‘survival of the fittest’ even longer, and with more modern interpretations using descriptive phrases such as ‘selfish genes’ and ‘arms races’, it is, to my mind, surprising that few have made similar connections before me. In this final part of my thesis, I am keen, therefore, to ascertain some of the similarities between my argument and Nietzsche’s will to power. We might question what is Nietzsche’s interest in metaethics? What are values? How do we come by them? What should we value? And why should we value them? Although, as I have argued, metaethics is founded on principles of power and that an underlying will to power can be postulated as the teleological factor that drives biological evolution, if you were to open an introduction to metaethics book, you would almost certainly see no mention of Nietzsche or the will to power as I mentioned in the introduction; furthermore, it would not even get a mention in the section under naturalist theories. Likewise, Nietzsche is not regarded among the pantheon of ‘moral philosophers’, and where he is mentioned, it is usually in connection with nihilism, or, with the notion of *going beyond good and evil*.

G E Moore’s (1903) ‘naturalistic fallacy’ and ‘open question argument’ had a huge impact on naturalistic metaethics in the twentieth century, perhaps leading moral philosophers and metaethicists to concentrate their efforts elsewhere. With academia becoming ever broader and compartmentalised both in the sciences and philosophy, it perhaps is not surprising that

philosophers may well be unaware of some pertinent scientific findings and science may well be unaware of relevant philosophical ideas. The fact that science has been ‘chomping at the bit’ in explaining morality since at least Darwin’s 1871 book *The Descent of Man and Selection in Relation to Sex*,⁸⁵ should at least alert the philosopher to these unseemly pretensions and to make sure they are always abreast of scientific developments, and of course many are, especially with the bold claims of the evolutionary psychologists and evolutionists in recent years. My literature review in the introduction to Part One names a few of these philosophers. Many philosophers have also compared and contrasted Nietzsche’s views and criticisms of Darwin’s theory. Such as John Richardson’s *Nietzsche’s New Darwinism* (2004), where Richardson argues of Nietzsche’s debt to Darwin and his basic acceptance of evolution by natural selection and how Nietzsche seeks to build on this theory with his will to power and notions of ‘drives’. However, Richardson clearly is unaware of the thermodynamic basis and links to evolution which support Nietzsche’s larger project, for he remarks that Nietzsche, ‘does sometimes add a metaphysical basis we likely reject’ (Richardson, 2008, p 7). Interestingly, Jean Gayon disagrees with Richardson and asserts that Nietzsche was ‘anti-Darwin’ and attacks the principle of natural selection itself quoting a passage from WP, III, 684 where Nietzsche tells us, ‘[b]ut one nowhere finds any example of *unconscious selection* (absolutely not).’ (Gayon in Maienschein & Ruse, 1999, p 167). While Gregory Moore, on the other hand, sees Nietzsche as reacting against what he saw as a ‘Christianising’ tendency in philosophical interpretations of Darwin such as Herbert Spencer’s, and tells us that, ‘Nietzsche’s own conception of evolution is in many ways not only anti-Darwinian, ‘but also anti-Spencerian’ in character’ (Moore, 2002, p 4).⁸⁶ Most notably, Nietzsche replaces ‘adaptation’, fitness or ‘life’ with power as the evolutionary driver which of course my research in Part One supports, however Spencer proposes an evolutionary progression toward what he called the social organism, an evolution from egoism to altruism,⁸⁷ which is also something I argued for in Parts One and Two. Also, he tells us in *The Study of Sociology* (1873) that ‘there is a real analogy between an individual organism and a social organism’ (Spencer in Moore, 2002, p 12). This ‘realness’ is not given in the evolutionary process of life or fitness but as I argue, in the ‘process’ of power maximisation, so my thesis represents a kind of synthesis of Nietzsche’s and Spencer’s thought.

⁸⁵ See especially Chapter 5 of Darwin (2013).

⁸⁶ Also see Wilson, (2013) for a similar interpretation to Moore.

⁸⁷ See Spencer, (1879).

It does seem as though thermodynamics and its links to life and natural selection has largely slipped by the majority of moral philosophers, and philosophers of metaethics. This brings us to Nietzschean scholarship. Scholars of Nietzsche are of course aware that he regarded will to power as a force in nature that drives natural selection, which in turn creates brains and mind that underpin psychology our morality and societal development. See for example Richardson (2008), Emden (2016) and Doyle (2018). Many Nietzsche scholars have significantly played down the will to power as a plausible metaphysical theory. Nietzsche's own response to metaphysics is itself ambiguous, with his outward rejection of metaphysical principles—which is to say, of eternal structures or truths—is apparent from his middle period onwards. Nevertheless, I think it most unfortunate that there is a strong tendency in Nietzschean scholarship to reject his metaphysical views as 'crackpot' or 'silly'.

Brian Leiter, a respected Nietzsche scholar speaking of will to power as a metaphysical principle, laments:

If it turns out that Nietzsche, the man, really is committed to what seems entailed by the most flat-footed literalism about a bare handful of published “will to power” passages (such as GM II: 12), then so much the worse for Nietzsche we might say. We may do Nietzsche *the philosopher* a favour, however, if we reconstruct his Humean project in terms that are both recognizably his in significant part, and yet, at the same time, far more plausible once the crackpot metaphysics of will to power (that all organic matter “is will to power”) is expunged. I am inclined to Clark's hopeful view that the crackpot metaphysics is really presented in an ironic spirit, and that Nietzsche, the otherwise sound naturalist, knew better. The fact that none of his actual moral psychology depends on the crackpot metaphysics, and that he assigns the crackpot metaphysics no significance in his own appraisal of his corpus, is additional reason to be hopeful on this score. But Nietzsche was a mere mortal like the rest of us, and even being a genius cannot compensate for the dangers of being self-taught about so much. Perhaps Nietzsche really did believe he had some deep insight into the correct metaphysics of nature, one missed by the empirical sciences. If he had that thought—one wholly inconsistent with the rest of his naturalism – so much the worse for him. Those of us reading him more than a century later should concentrate on his fruitful ideas, not the silly ones, especially when they are not central to his important work in moral psychology. (Leiter, 2015, p 261)

My research counteracts Leiter's claims in several ways. Firstly, my argument—which is supported by evidence from the natural and cognitive sciences, which is most definitely not

‘silly’ or ‘crackpot’, and, of course, integral to the empirical sciences, supports Nietzsche’s metaphysical insight. Secondly, we find scattered throughout Nietzsche’s writings allusions to ‘power’, and ‘will to power’ in relation to physics, life, human behaviour and social dynamics such as HTH I, 235, WS 34, D112, D204, GS 13, BGE 36, BGE186, GS 110, Z ‘Of Self-Overcoming’ BGE 13, GS349 to name but some. They are not only present within the work *The Will to Power* (1901) which is often rejected within Nietzsche scholarship due to the fact that it was heavily doctored by his sister, Elisabeth, and merely passed off as a work by him. Thirdly, will to power is, I claim, required to substantiate Nietzsche’s moral psychology; if it did not underpin it, it would stand apart from nature, and would remain unexplained. Leiter’s claims seem, therefore, to counteract findings from the empirical sciences and therefore misjudges, I assert, the real value of Nietzsche’s notion of will to power. Contrary to Leiter’s assessment, I argue that will to power is fundamental to his moral philosophy; furthermore, findings of the empirical sciences following Nietzsche’s death, are prescient of discoveries to come in future—something which Leiter himself concedes. Therefore, my initial task in this final part of the thesis will involve me demonstrating that Nietzsche was serious about the will to power as a metaphysical principle and that it is fundamental to his moral philosophy.

Nietzsche scholarship on this point tends to fall into two general categories—those who agree with Leiter that Nietzsche never intended will to power as a metaphysical principle and those who allow that he did. However, the latter camp often finds this metaphysical account as an unbelievable idea. Richardson for example says:

In *Nietzsche’s System* [1996] I interpreted “will to power” as a hypothesis about the basic character of all reality – a hypothesis not claimed proven by a priori argument, but offered as a candidate to fit and explain our overall experience. I continue to believe that this is how Nietzsche most commonly means it, and that it’s in this role that the notion ties together the greatest share of his thoughts. However, this “power ontology” is incredible for most of us. The claim that *everything* is toward power leaves Nietzsche no alternative to a mental vitalism, reading mind into all things despite his explicit disavowals. For how else can he find a directedness, a teleology there? (2008, p 64).

My argument about power accounts for power as an underlying teleological principle that underpins the natural world, including our cognitive functions and psychological behaviours. As such, I construe the will to power as an evident empirical fact and also a metaphysical

proposition. The task that I have set myself here is to ascertain the extent to which Nietzsche's own model addresses similar concerns to my own.

I am certainly not the first philosopher to realise that Nietzsche's will to power metaphysical principle is a scientifically justified thesis.⁸⁸ The philosopher Timothy McWhirter has recently argued that Nietzsche-scholarship in general has largely thought of the will to power metaphysics as something implausible: 'There is a form of "philosophical charity" that has been used in the interpretation of Nietzsche that has undermined our ability to understand the OWP [Ontological Will to Power hypothesis] and appreciate its prescience' (McWhirter, forthcoming, p 26).⁸⁹

McWhirter's paper addresses some of the influences on Nietzsche's ideas. Of course, there may have been many other theories and theorists who may have influenced his work, which we are currently unaware of. McWhirter argues that Nietzsche's will to power hypothesis is fully consistent with the scientific ideas of his day as well as those posed by other philosophers. For example, 'Nietzsche read Jean-Marie Guyau's *Esquisse d'une morale sans obligation ni sanction* [*A Sketch of Morality Independent of Obligation or Sanction*] (1885), where Guyau argues that the central goal of human agency is the intensification of the experience of living.⁹⁰ He describes the "power [*puissance*] of life", as a productive force that assimilates resources from its environment and continually expands' (McWhirter, forthcoming, pp 11-12).⁹¹

McWhirter also refers to William Henry Rolph (1847-1883), an entomologist who, like Nietzsche, criticizes Herbert Spencer's application of natural selection to morality and social development. (Ibid). He also cites Emden (2014), who writes that,

Rolph provided Nietzsche with a crucial metaphor: arguing that Darwin's "struggle for existence" and Spencer's "survival of the fittest" falsely implied that evolution had reached its

⁸⁸ The relatively few philosophers who have written about the thermodynamic principles supporting Nietzsche's philosophy mostly are in relation to his theory of 'eternal recurrence', see for example D'Iorio (2000). Ansell-Pearson (1997) chapter 6. For a more thorough look at Nietzsche's philosophy and contemporary science including thermodynamics and quantum theory see Plank (1998).

⁸⁹ Also see McWhirter (Under review).

⁹⁰ Taken from Keith Ansell-Pearson. "Free Spirits and Free Thinkers: Nietzsche and Guyau on the Future of Morality," in Jeffrey Metzger (ed). *Nietzsche, Nihilism, and the Philosophy of the Future*, London 2009: 102-24.

⁹¹ McWhirter (Forthcoming) quoting Guyau, *Esquisse d'une morale sans obligation ni sanction*, 246, 250.

climax in human beings, he presented a more dynamic model that replaced the “struggle for life” [Kampf um’s Leben] with that of a “struggle for the expansion of life [Kampf um Lebensvermehrung]. (Emden 2014)⁹²

McWhirter identifies Christian Emden’s assertions within Nietzsche’s *Beyond Good and Evil* (1886) where Nietzsche writes:

Physiologists should think before putting down the instinct of self-preservation as the cardinal instinct of an organic being. A living thing seeks above all to discharge its strength – life itself is *Will to Power*; self-preservation is only one of the indirect and most frequent *results* thereof. (BGE 13).

McWhirter’s insightful paper demonstrates how Nietzsche was probably inspired by other key thinkers of evolutionary theory. Nietzsche fundamentally disagrees with the idea that survival or replication is the principle driver at work in an organism, and claims they are, instead, the *results* of something else. That something else he describes as the will to power. Nietzsche is positing the will to power as an explanation of nature, and, arguably, it is a crucial theory within his philosophical work.

In Part One of my thesis, I argued that ‘life’ is created from thermodynamic principles, namely MEPP and the second law of thermodynamics. It is pertinent to question whether Nietzsche also had an inkling of these laws or processes?

To that end, it is important to consider the writings again of McWhirter and Emden. Indeed, while McWhirter explains how ‘Mayer’s theory of heat provided support for Nietzsche’s reading of Rolph’ (McWhirter, forthcoming, p 13). Emden concludes that:

In a sense, it provided what Nietzsche regarded as the mathematical verification of Rolph’s assumption that life was characterised by an expansion of power which wasted energy beyond what was necessary for the simple preservation of organisms: “The chemical process is always larger than its useful effect,” and Mayer proceeded to calculate the energy wasted by steam engines, cannons, and the metabolism of mammals, which Nietzsche, in his notebooks of mid 1881, quoted verbatim and with approval (KGW V/2, 11 [24]). There could

⁹² Emden taking from Willaim Henry Rolph, *Biologische Probleme, zugleich als Versuch zur Entwicklung einer rationellen Ethik*, 2nd edition, English, Leipzig 1884.

be, Nietzsche assumed, no equilibrium in the world of forces, since any such equilibrium would have to imply that development has become stagnant (Emden, 2014, p 174).⁹³

McWhirter also points out that Nietzsche mentions the work of Roger Boscovitch (1763) in *Beyond Good and Evil* (BGE 12)—a work which Nietzsche read in 1873-74.⁹⁴ McWhirter informs us that ‘Boscovitch’s view that matter should be understood as fields of force, is similar to the view Kant outlines in his *Metaphysical Foundations of Natural Science* [1786] that matter is “a special moving force”’ (McWhirter, forthcoming, p 13). Nietzsche also read Maximilian Drossbach’s *Ueber die scheinbaren und wirklichen Ursachen des Geschehens* [*On the Apparent and Real Causes of Events*] (1884). Where, ‘Nietzsche found a concept of power, or force, that was similar to the one he developed in the mid 1880s’ (Ibid, p 14). Drossbach himself wrote, ‘We only have proper understanding of force if we recognize it as the striving for expansion [Streben nach Entfaltung]’. (Drossbach in McWhirter, forthcoming, p 14).⁹⁵ Emdem also informs us that, ‘Nietzsche underlined the last three words commenting in the margins of his copy of Drossbach’s book “will to power”, is what I say.’ (Emdem, 2014, p 171)⁹⁶ It is important to note here that Nietzsche must have meant will to power as a more fundamental principle than something that only applies to the psychology or biology of organisms, but is fundamental to force itself: the basic physical dynamics of the natural world more generally.⁹⁷ McWhirter continues:

Boscovitch described matter as a product of an interaction between fields of force; Drossbach described power as a product of an interaction between natural beings; Nietzsche described the mind as a product of an interaction between different drives, and he argued that the “moral of method” gives us reason to consider whether Boscovitch’s model works at all the different levels of the material world. Drossbach’s work is based on research from a number of different disciplines of science. His concept of force relates to both organic and inorganic systems. Nietzsche’s description of the will to power as a “pre-form of life” that applies to the

⁹³ Quote from Julius Robert Mayer, *Die Mechanik der Wärme in gesammelten Schriften*, Stuttgart 1867.

⁹⁴ Citing: Whitlock, G, (1996), Roger Boscovitch, Benedict de Spinoza and Friedrich Nietzsche: The Untold Story, *Nietzsche-Studien* 25: 200-220. Stack, G, (1983), *Lange and Nietzsche*, Berlin: 224-261. Boscovitch, R. (1922), *A Theory of Natural Philosophy*, edited by J. M. Child, Chicago. Latin-English edition from the text of the first Venetian edition published under the personal superintendence of the author in 1763.

⁹⁵ McWhirter cites Maximilian Drossbach, *Über die scheinbaren und die wirklichen Ursachen des Geschehens in der Welt*. Halle/Salle 1884.

⁹⁶ McWhirter writes in the footnote for his comment also quoting from Emdem. “See the comment in Nietzsche’s copy: Herzogin Anna Amalia Bibliothek. Weimar, Germany, Sig. C252.

⁹⁷ See D’lorio, (2000) for more evidence of Nietzsche’s thinking being on a cosmological scale rather than the limited biological or psychological scales.

“mechanistic (or “material”) world” is consistent with Drossbach’s understanding of force (BGE 36). (McWhirter, forthcoming, pp 14-15).

It is important to note, too, how Nietzsche might construe the interaction of his master and slave dyad in light of Boscovitch’s ‘interactions’, as an essential dynamic relationship of power, and then to postulate how these different psychological outlooks—of slave or master—develop from out of this interaction of force. Without this ‘driving’ principle of will to power, it is difficult to understand how the master/slave moralities develop and why. Without the all-encompassing will to power, the notions of master-slave become an isolated and disconnected psychological theory—and such a theory is, arguably, much more deserving of the ‘crackpot’ description that Leiter attributes to the conception of will to power that I am arguing for. This is the reason why I think that Nietzsche’s moral theory depends entirely on a commitment to psychological outlooks, which develop out of the interactions between individuals and groups. His widely acknowledged commitment to contrasting perspectives develop out of power dynamics between people—and this leads him to posit two key types or perspectives: the slave and the master. The slave and master reflect different perspectives or attitudes of the will to power—expressing, that is, two entirely different perspectives on the achievement and exertion of one’s own power/ status.

McWhirter makes a compelling argument that claims that Nietzsche’s will to power is not something that he or his commentators wildly dream up in a rush of blood to the head, but something Nietzsche was very serious about promoting as a metaphysical foundation upon which to build, and also as an empirical principle that could be tested. It is not a wild theory or an absurd one, but is one derived from the science and philosophy of his day. By proposing the will to power as a metaphysical foundation Nietzsche sought to arrive at an understanding of metaethics and to found new values for humanity. And he sought to do so, I claim, in accordance with findings and theories from the natural sciences, rather than focussing principally on ideas developed from within social discourses. Nietzsche, I claim, regarded science and naturalism as the most plausible route to answering the questions about values and morality. Interpreters of Nietzsche concede that he was very interested in the scientific theories of his day, and his notion of the will to power is, I contend, the key idea within his philosophy that binds his scientific understandings and moral theorising together—it is the root that grows his philosophical tree.

McWhirter goes on to explain the developments in thermodynamics since Nietzsche's time, which now support Nietzsche's will to power. In this respect, Nietzsche is demonstrated as a particularly insightful philosopher, one who anticipates in his philosophical ideas, verifiable scientific facts. Since I have discussed most of these findings within the greater part of my thesis into the empirical foundations of morality, I will not outline them again here. So far, in this chapter, I have attempted to show that Nietzsche's will to power is a fundamental idea—a metaphysical insight, if you like—into the workings of the human species and of life itself, and is itself based on the empirical findings of the sciences of his day. Following this, I wish now to turn to some of the key objections to interpreting Nietzsche in this way. I do so by looking briefly at the development of Nietzsche's thought and philosophy, before returning to Leiter's objections.

It is uncontroversial to assert that Nietzsche sought to explain 'morality' according to the origins of the human species; that is to say, to take some guidance from the natural sciences and apply them to his philosophical system, especially in terms of its methodology. And to that end, I agree with Leiter when he states: 'Nietzsche's naturalism is fundamentally methodological' (Leiter, 2015, p 5). Leiter goes on to quote from BGE 230, where Nietzsche describes his philosophical task as the need to '[t]ranslate man back into nature.' But, let us be clear about what this entails. In my interpretation of this passage, Nietzsche suggests he seeks to understand humans, their psychology, attitudes and behaviours from principles observable in nature, with the possibility that, perhaps, these can be translated back to the very laws of nature themselves, that is, to return to physics.

The methodology of science, after all, is primarily reductive and seeks, in this context, to establish how and from what humans are created—which includes the origins of their psychology, their evolutionary history, and so on—and thence to scrutinise those building blocks of creation to establish the rules, laws, or behaviour-principles they are following, and where possible, to provide testable hypothesis to help us to understand the whole process. This kind of scientific methodology, I contend, is that which Nietzsche applies most notably in his account of the 'genealogy' of morals. In his philosophy, as with scientific hypotheses, there can be no 'half-bakedness', no special dispensations, which suggest, for instance, that the laws or principles apply only to the human species or to aspects only of their psychology or even only their biology—this would give rise to further reductive questions, which would thereby suggest that Nietzsche had failed in his task of 'translating man back into nature'. I

will now take a brief look at the development of Nietzschean thought in regard to the will to power and morality.

14.1. Human All Too Human, I.⁹⁸

A key publication of Nietzsche's, regarded as emphasising his forays into positivistic science is his work, *Human all too Human* (1878/9), comprised of two sections, the first one of which was subtitled 'A book for free spirits'. The work employs his aphoristic style, and as such, he does not present a clear or systematic theory or philosophy, but rather, a 'poking or probing' of subjects from different directions and contrasting perspectives. However, that is not to say that we cannot discern a pattern or general viewpoint; indeed, we start to see in this work, the kernels of ideas that would come to dominate his later philosophy. It is very hard to summarise such a diverse collection of aphorisms, but in chapter one of the first section of the work, we are introduced to Nietzsche's critique of 'other-wordly' metaphysics, which was a subject that had preoccupied philosophers before him. Nietzsche is keen on tracing origins and genealogies of ideas, and he concludes that science is the only domain that can sensibly answer questions of aesthetics, morality and religion. He writes:

All that we need, and what can be given to us only now, at the present level of the individual sciences, is a *chemistry* of the moral, religious, aesthetic representations and sensations, likewise of all those stimuli that we experience within ourselves amid the wholesale and retail transactions of culture and society, indeed even in solitude: what if this chemistry were to reach the conclusion that in this area, too, the most magnificent colors have been extracted from base, even despised materials? (HTH I, 1)

It seems pretty clear from this aphorism that Nietzsche regards it as necessary that we trace human experiences and psychology to their historical origins and to the very processes that instantiate them, and that when this is done, it may be proven that our grandest notions of ourselves, originated from something base. This is a theme that is continued throughout his moral thinking, that, for instance, moral good and immorality or moral bad are really on a spectrum—similar, perhaps to the one I presented earlier—and are not, as many

⁹⁸ Although I begin from the beginning of his middle period, William Plank, traces back the 'seeds' of the will to power to *The Birth of Tragedy* (1872) and the 'Dionysian' where he says 'the Dionysian was the first intuition of what would become the Will to Power'. (Plank, 1998, p 378).

philosophers before him proposed, in metaphysical opposition to one another. Nietzsche sees the world and our representation of it as in a process of 'becoming' (HTH I, 16).

Importantly, Nietzsche also criticises and questions the notion of freewill based on our experiences and sensations. He begins to argue that our thoughts and feelings are not 'ground zero', so to speak, but the culmination of more fundamental processes:

What lies farthest away for the primal stage of logic is the thought of causality: even now we still basically think that all sensations and actions are acts of freewill; when the sensate individual observes itself, it takes every sensation, every change for something *isolated*, that is, unconditioned, without connection: it rises up from within us without any tie to earlier or later things. We are hungry, yet do not originally think that the organism wishes to be sustained; instead, that feeling seems to assert itself *without any ground and purpose*, it isolates itself and takes itself as *arbitrary*. Therefore: the belief in freedom of will is an original error of everything organic (HTH I, 18).

Again, we see here how Nietzsche is already looking past psychology, and past our feelings and experiences, for the grounding principles or 'laws' that create those sensations—towards that which triggers our feelings, our pleasure, pain, or other sensations.

In HTH I, 25, Nietzsche challenges the idea of individual moral categorical imperatives, which are regarded by others as beneficial to the whole of humanity with their supposed provision of harmony, and instead suggests that, in future, it might prove to be the case that we should not all be disposed to act in the same way but under 'certain circumstances even evil tasks ought to be given to whole stretches of humanity'. He concludes this point by saying:

In any case, if humanity is not to destroy itself through such conscious, total regulation, a *knowledge of the conditions of culture* exceeding all previous degrees of such knowledge must be discovered beforehand, as a scientific measure for ecumenical goals. Herein lies the enormous task for the great spirits of the next century. (HTH I, 25)

Nietzsche does not leave this to the next century but begins the process himself. However, this last quotation, I believe, reveals a bias in his thinking, a bias that, I wish to argue, develops over the course of his mature philosophical thought, and clouds his presentation of moral development. If it were not for this particular bias, his thoughts about morality would, I

claim, be closer to the model I have developed within my thesis. This particular bias becomes a thorn in the side of his philosophy, I contend, leading him to incorrect conclusions about the origins of degeneracy in life, which, in turn, becomes the downfall for his later philosophical conclusions. This bias is, I claim, the assumption that humanity is on a path to destroy itself due to its propensity for 'total regulation'. Nietzsche makes no argument here as to how or why this regulation will destroy humanity, which is unfortunate. Indeed, in the next chapter he writes,

Every teacher, every official, adds this seasoning to what is duty for him; it is the continual activity of human nature, the waves of light, as it were, in which everything grows; especially in the narrowest circle, within the family, life turns green and blossoms only by means of that benevolence. Good-naturedness, friendliness, politeness of the heart, are the ever-flowing streams of the unegotistical drive and have worked more powerfully in building culture than those much more famed expressions of it that we call sympathy, compassion, and sacrifice. (HTH I, 49).

From the perspective of my argument, the obvious response I have to this is, why not 'universalise' this benevolence? Where will the destruction of humanity actually come from? I think that Nietzsche provides answers to these questions as and when his thinking on the matter develops throughout his writings, but from my perspective, it is important to note that Nietzsche here equates this experience of benevolence with a flourishing of life. The bias I note in his work, I think stems from a rejection of what Nietzsche sees as a 'homogenising' of individuals, of individuals becoming a function within a group.⁹⁹ I will argue for this, as I continue through my survey of his thought. Nietzsche thinks the individual will become lost, which is a problem for him, especially when it comes to the loss of the 'free spirits' or creative geniuses which require autonomy to create¹⁰⁰ (great individuals, which in his later thought become the *Übermenschen* or the 'overmen'). In my model, as I have presented it, the opposite is actually the case. In other words, culture and societies require what Nietzsche comes to refer to as 'slave morality', it is in fact useful within the development of morality, as a co-operator morality, and, as we see in the last quotation, a necessary

⁹⁹ Plank (1998) argues Nietzsche's concerns about 'equilibrium' and 'equality' stem from his understanding of thermodynamics and 'heat death', (see pages 35 and 415 in particular) thus maintaining the power (energy) gradient of master and slave in society become essential, as gradients are the source of order. However, I would argue this should only be of concern if humanity were a closed system which it is not and a social organism does maintain an energy/power gradient precisely to be ordered, but in a sustainable (autocatalytic) way.

¹⁰⁰ See HTH I, 235

requirement for the blossoming of life. An argument may be made here that Nietzsche can be interpreted as agreeing whole heartedly with those above comments, such as from A, 57, which I will deal with in the next chapter. Indeed, as I will argue in the next chapter, Nietzsche, perhaps unwittingly, argues for the need for actions or behaviours ‘against life’, which, I claim, is a logical impossibility given his fatalistic outlook.

In the second chapter of HTH I, Nietzsche investigates the history of our moral sensations, and he reiterates the need to trace back our origins of judgement and our lack of freewill:

At first, we call individual actions good or evil without any concern for their motives, but instead solely on account of their beneficial or harmful consequences. But we soon forget the origin of these designations and imagine that the quality “good” or “evil” inheres in the actions in themselves, without regard to their consequences: making the same error as when language describes the stone as hard, the tree itself as green—that is, by conceiving an effect as the cause. Then we locate the good or evil in the motives and consider the acts themselves to be morally ambiguous. We go further and no longer assign the predicate good or evil to the individual motive, but instead to the whole being of a person, from which the motive grows as does a plant from the soil. Thus we make a person successively responsible for his effects, then for his actions, then for his motives, and finally for his being. We finally discover that even this entity cannot be responsible, insofar as it is entirely a necessary consequence, a concretion of the elements and influences of past and present things: hence, that a person cannot be made responsible for anything, neither for his being, nor his motives, nor his actions, nor their effects. With this, we have attained the knowledge that the history of moral sensations is the history of an error, the error of responsibility: as such, it rests upon the error of freewill. (HTH I, 39).

Nietzsche is alerting us to the fact that the origin of the judgement lies in beneficial or harmful consequences, and this is an evaluation of an effect, which is to say, an empirical judgement, but, importantly, that we derive from this judgement the terms good and evil, and hypostatise them as present in the action, motive and being of a person. At this stage he does not seek to reduce the terms beneficial or harmful to their basic roles or functions for an organism.

In HTH I, 42, Nietzsche refers to the changes in moral thinking over time and how,

“Immoral” therefore signifies that someone does not yet feel or does not yet feel strongly enough the higher, more refined, more spiritual motives that the new culture of a given time

has brought with it: it designates someone who is backward, but always only to a certain degree.

This is also an interesting observation given that Nietzsche later seeks to *revalue values* and to return to a time when values affirmed life—which is to say, in effect, to go ‘backwards’ in time. He continues to develop this thought in HTH I, in aphorisms, 43, 224 and 614. In aphorism 44, he equates the good with the powerful, and he starts to examine aspects of psychology in terms of power relations. In aphorism 45, we begin to see how good and bad are equated with the powerful and the powerless, and with master and slave. Here he introduces the idea that. ‘Our present morality has grown from the ground of the *ruling* tribes and castes’, and he regards the morality of his day, as a ‘slave morality’, this passage, thereby, reveals the dual prehistory of good and evil, and how it begins with the powerful, and with the good as synonymous with the powerful. In aphorism 47, we see how Nietzsche thinks certain kinds of sympathy can become a sickness and also mentions a similar ‘hypochondria’ in Christianity.

I have already mentioned how in aphorism 49, Nietzsche reveres benevolence as necessary for the flourishing of life, but he later makes the point that these seemingly unegotistical actions are not as unegotistical as they first appear. For, ‘The *sum* of these smaller doses is nonetheless potent, their combined force is among the strongest of forces.’ Nietzsche here seems to be well-aware of the synergy created by benevolence and how it is beneficial for the individual and not just a ‘group-oriented’ behaviour.

In aphorism 50, Nietzsche again explores power relations in psychology with focus on pity, and how the pitied have a certain power over people, which, as Nietzsche sees it, is ‘the power to give pain’. And how:

The unfortunate person gains a sort of pleasure in this feeling of superiority, which the display of pity brings to his awareness; his imagination ascends, he is still important enough to cause pain to the world.

Here we can see that pleasure is a direct effect of the power recognition/evaluation which is achieved subconsciously. Nietzsche, throughout this chapter and for the rest of the book,

frequently refers to power and power relations either explicitly or implicitly.¹⁰¹ The principle of will to power as one that underlies psychology and sociality is dormant in his thinking—it stirs and kicks as if an unborn in his thought, but he is obviously pregnant with it.

Nietzsche, by tracing ‘man back into nature’, is committed to a fatalistic outlook, and his understanding that good and evil are branches from this same trunk. That is to say, they are derived from the same source, and are ‘essentially’ the same thing. In 107 he tells us:

[W]e are torn this way and that way by various motives until we finally decide upon the most powerful one—so we say (but in truth, until the most powerful motive decides for us). But all these motives, however lofty the names we give them, have grown from the same roots in which we think evil poisons reside; there is no difference in kind between good and evil actions, but at most in degree. Good actions are sublimated evil ones; evil actions are good ones made coarse and stupid.

It is worth pausing here and addressing one of Leiter’s objections to the will to power as a metaphysical principle in Nietzsche’s thought. The objection he has is that most of the supporting references for such a notion are in Nietzsche’s unpublished notebooks, the *Nachlass*, and only a relative handful are in the published works (Leiter, 2015, p 116). Firstly, the amount of usage is, I claim, irrelevant—one need only make the point once. Secondly, in a footnote Leiter refers to Nietzsche’s thought in the *Nachlass* as follows:

Actions cannot be morally evaluated on the basis of motives, not because the motives are unknown, but because they are all the same! So, for example, in a *Nachlass* note of 1887, he writes, “My purpose: to demonstrate the absolute homogeneity of all events...; to demonstrate how everything praised as moral is identical in essence with everything immoral” (WP: 272; cf. WP: 375). This thesis is in obvious tension with the thesis in the published works that motives are unknown, which may explain why Nietzsche never published this idea of the “homogeneity of all events.” The thesis also depends, of course, on a very strong form of the doctrine of the will to power, a doctrine, as we shall see later, that Nietzsche did not ultimately accept. (Leiter, 2015, p 116).

I will reserve judgement on that last claim about ultimate acceptance, and when ‘ultimate’ actually occurs for Nietzsche, and simply highlight the fact that this idea is not located

¹⁰¹ See for example, HTH I, 81, 92, 99, 103, 104, 107, 137, 317, 446, 603, and HTH II, MOM, 20, 245, 263, WS, 10, 22, 31, 34, 181, 251.

merely within Nietzsche's *Nachlass*, it is, I claim, fundamental to Nietzsche's thinking, as demonstrated in HTH I, 107.¹⁰² What Nietzsche has not yet developed are the motives themselves—currently, he regards people as enacting the most powerful motive—the 'penny has not yet dropped' that this motive is—as I have been arguing with my own model of power—that it is the motive that provides for us the most power in life. Later, the 'penny drops' for Nietzsche, as we will shortly see.

The will to power as a metaphysical principle is what homogenises the different motives for Nietzsche to make the above claims, but he is still waiting for its arrival in HTH I, 107, and yes Leiter is, I contend, correct to assert that it requires the 'very strong form'.

14.2. Nietzsche's Early Theory for the Formation of Groups/States.

The main purpose of this chapter, as I have noted, is to justify the will to power as a metaphysical principle for Nietzsche, as, that is, the foundation and 'glue' to bind his early ideas and thoughts into a coherent philosophy. But this chapter also seeks to highlight possible ideas that diverted Nietzsche from arriving at different conclusions to me, and by extension, away from conclusions reached by modern scientific understandings. One important thought regards how Nietzsche thinks a group or collective of humans comes to be. In HTH I, 99 he writes:

In the condition that precedes civil society, the individual can treat other beings harshly and cruelly for the sake of *deterrence*: in order to make his existence secure by demonstrating his power of deterrence. This is how violent and powerful people behave, as does the original founder of a state who subjugates weaker individuals. He has the right to do so, the same right as the state still assumes; or rather: there is no right that can hinder this. The basis for all morality can be established only when a greater individual or a collective individual (society or the state, for example) subjugates individuals, hence removes them from their isolation and organizes them into an association.

Clearly this is at odds with the benevolent synergy hypothesis that he had, which I cited earlier. These represent two different and possible trajectories for the formation of groups: firstly, an organisation that is dominated by a powerful master, and secondly, a benevolent synergy that promotes co-operation for the greater good of all, including the individual. And

¹⁰² Also see Z (on Self-Overcoming) & BGE 2.

these two different trajectories require a choice. Nietzsche, I contend chooses to emphasise the first trajectory as the key approach that underpins his later understanding of morality, and this, I claim, problematizes his general thesis around morality. I wish to argue that had he pursued the second of these then his model of morality would have been closer to my own. Indeed, it would be interesting to see just how different his philosophy would have been, had he done so. I wish to outline further developments of his thought to give an idea as to why he seems to have emphasised the first approach over and above the latter.

One related concern for Nietzsche was with what he saw as a constraint on ‘free spirits’ or genius by the creation of states, he tells us:

The socialists crave to produce a good life for as many people as possible. If the lasting site of this good life, the perfect state, really were attained, that good life would ruin the soil from which great intellect and any powerful individual grow: by which I mean great energy. HTH I, 235.

Nietzsche hypothesises in earlier aphorisms 229-234 about free spirits and genius in general and how it comes into existence by what we might term ‘unequal energies’ in the world. He remarks that, ‘so, too, a very strong and expansive free-spiritedness may well be evidence that the heat of sensibility has somewhere grown exceptionally strong’ (HTH I, 232). Compare this with the relationship between thermodynamics and life, and the notion that energy gradients are responsible for life itself. In this scenario, Nietzsche would see the flattening of these gradients as detrimental to the free spirit or genius, and even the individual itself, as he goes on to say:

The state is a clever arrangement for the protection of individuals from one another: but if we push its refinement too far, we will finally weaken the individual, even dissolve him—and thus the original purpose of the state will be most thoroughly thwarted. (HTH I 235).

Nietzsche is afraid the state will ‘dissolve’ the individual and genius into a bland equilibrium, what he later calls a ‘mediocrity’ or herd. Remembering the two alternatives for the formation of groups, I would argue the state is also synergistic, it adds power to the individual where there was none before. Nietzsche calls for a return to the original purpose of the state, which, he perceives to be under threat due to the overemphasis given in modern societies to the collective, which, he thinks squeezes out the possibilities of genius. He calls for a society where the genius is allowed to explore their creativity. The state needs to support this work,

and, as such the herd or non-geniuses are required to undertake the menial tasks, to enable the genius to undertake theirs. The 'genius' can work on his/her projects because others are engaged in farming, defence, and providing all the basic needs.

14.3. Human All Too Human, II.

The two sections of HTH II (1879-1880), *Mixed Opinions and Maxims* and *The Wanderer and his Shadow*, generally continue to develop, probe and poke around the ideas from HTH I. A notable passage is MOM, 366, where Nietzsche seems to allow a kind of break from fate, a possible choice in your own becoming, to 'become a self'. A 'glimmer' of freewill perhaps. MOM, 406 is also a notable passage as it seems to suggest metaphorically that Nietzsche is aware of the importance of the tree and the sap to the fruit, that is the state to its geniuses. I will fire a 'warning shot across his bow' here. If Nietzsche is here suggesting the state with its slave morality is necessary to produce the genius and then later perhaps to declare the genius as the meaning of life, then this will prove problematic for a view of slave morality as 'anti-life' or indeed detrimental in any way.

In WS, 11 we get more supporting evidence for the flow and 'becoming' in nature and how our psychology breaks these things down into facts and into words and language, and thus Nietzsche thinks language becomes an 'evangelist' for our ideas of freewill, which is to say, essentially an illusion created by how we quantize a perpetual flow, a nature we are all a part of (as Nietzsche tells us in WS, 327). Nietzsche is making the point that we feel disconnected from nature, but that does not mean we are. It must then follow that whatever principle works in nature must work in us and vice versa. There can be no disconnection. This echoes Schopenhauer's influence, a world of flow or becoming, our representation of it seemingly disconnected but at heart we are one and the same thing. Nietzsche is still not entirely accepting of the terms 'will' as Schopenhauer used it and certainly is already questioning 'life' as its driving motivation as in WS, 17.

Nietzsche again in WS, 44 seems to think that morality developed 'out of' community rather than being responsible for it. He writes, 'Morality is initially a means for maintaining the community in general and averting its destruction'. We may perhaps accuse Nietzsche of not 'taking his own medicine' and confusing the effect with the cause. He seems to think morality is an emergent phenomena of community, rather than a necessary constructor of community. Again, he is perhaps shifting his considerations towards thoughts of construction

of communities by a powerful individual. In WS, 41 Nietzsche explores the idea of how certain types of compassionate morality might be detrimental to society producing 'pleasant, weak, good-for-nothings'. WS, 189 speaks of how reason can prepare the way for humanity to flourish. In so doing, his ideas are compatible with my conclusions from Part One and Two and the role of morality as ensuring the continual existence of humanity.

14.4. Daybreak.

In *Ecce Homo* (1908), Nietzsche alludes to his earlier work, *Dawn of Day or Daybreak* (1881) as it is more commonly known: 'With this book I open my campaign against morality'. *Daybreak* largely deals with descriptions of human life and behaviour as aspects of power relations, including our psychology, religion, and of course morality. In aphorism 9, Nietzsche writes that in earlier times 'morality is nothing else (and, above all, nothing more) than obedience to customs, of whatsoever nature they may be'. And that '[w]here there is no tradition there is no morality; and the less life is governed by tradition, the narrower the circle of morality'. Thus, for Nietzsche the free man or spirit, wishing to question or change tradition is regarded by society as an outcast, as someone perhaps equated with 'evil'. Nietzsche defines tradition as: 'A higher authority, which is obeyed, not because it commands what is useful to us, but merely because it commands'. We obey out of a kind of fear for a 'higher intelligence', or 'incomprehensible power'. He tells us there is 'superstition in this fear'. As the customs and traditions in Nietzsche's time relate in part to the influence of Christianity and to the belief in God as the ultimate power behind it, he sets the stage for his attempt to undermine this traditional conception of morality.

If morality is custom or tradition, then those who seek to overturn tradition or change our moral thinking, are regarded as insane (D, 14). For Nietzsche then, the great leaps or changes in customs and morals are often brought about by the free thinker or genius who were regarded as 'insane' prophets. Nietzsche later presents his teaching from the mouth of Zarathustra, who is a misunderstood prophet, who wanders, detached from the cities and people who reject him or misunderstand his teachings.

Aphorism 23 shows how our feelings of fear and superstition in earlier times gradually gave way to our perceptions of power. He writes:

But since the feeling of *power* in man has been developed in so subtle a manner that, in this respect, he can compare favourably with the most delicately-adjusted balance. This feeling has become his strongest propensity: and the means he discovered for creating it form almost the entire history of culture. (D, 23).

Nietzsche seems to be suggesting that humanity starts out as a group, steeped in superstitious fear of a greater power, from which it eventually develops a more powerful individual. In D, 26, Nietzsche argues that all our moral virtues have an animal origin—again, perhaps suggesting that social morality is something from which we have evolved rather than evolving toward. If this is sustained throughout his later thinking, it may well explain why he took the path he did in his reflections about morality, and how his thinking departed from scientific findings that were deduced after his time, after his death.¹⁰³ However, Nietzsche's thinking here, within *Daybreak* is still relatively ambiguous on the matter, as an animal origin may well refer also to the individual selfish animal.

As I have mentioned, much of *Daybreak* comprises arguments and examples to explain how behaviour reflect power relations, especially with regard to morality. For example, in D 30, Nietzsche shows how a feeling of moral superiority is used to make others feel inferior such as: 'The nun's chastity: with what threatening eyes she looks into the faces of other women who live differently from her! What a vindictive joy shines in those eyes!' Also see D, 53, where sin is explained as a religious invention to enable those who punish sinners to enjoy 'their power'. Nietzsche also describes the cruelty that underpins morality and virtue, but, as he does so, he is simply exposing the power relations that underpin morality—the feelings of superiority and inferiority, and again showing the homogenisation of morality and immorality, which, as Leiter contends, requires a 'strong form' of will to power.

In D, 48, Nietzsche reiterates the idea that man has to be understood in conjunction with the whole of nature and therefore cannot stand alone from it. For much of the rest of the first section of *Daybreak*, Nietzsche turns his attention to a critique of Christianity, with its links to the superstitious past and its ability to assimilate primitive cults (D, 70).

Book two refers so much to power that Nietzsche actually remarks on this fact to say, 'Perhaps I say this too often; but that does not prove that it is not true' (D,128). In D129,

¹⁰³ Two later quotations supporting this notion can indeed be found in Z 'Of Love of One's Neighbour' and BGE 261-262.

Nietzsche develops the idea of a 'combat of motives' in our decision making and the confusion we feel when we try to weigh up consequences, which is not the same as identifying motives; he argues that our 'real 'contest of motives"' is 'something quite invisible and unknown to us'. Again, prescient of my neuropsychological findings presented in 7.3. In D, 117, Nietzsche still seems to incorporate a Schopenhauerian view of representation in that:

The habits of our senses have wrapped us up in a tissue of lying sensations which in their turn lie at the base of all our judgments and our "knowledge,"—there are no means of exit or escape to the real world!

When we add this view to his fatalism and to the notion that our motives and drives can be traced back into nature through earlier animalism and to the laws of nature itself, we have, I contend, something close to a Schopenhauerian perspective. And, if Nietzsche meant the will to power in any other way than a metaphysical sense, such as a purely psychological sense at this stage of his thinking, I suggest he would have given himself every opportunity to saying so in *Daybreak*. Nietzsche continues to assert,

Neither necessity nor desire, but the love of power, is the demon of mankind. You may give men everything possible—health, food, shelter, enjoyment—but they are and remain unhappy and capricious, for the demon waits and waits; and must be satisfied. Let everything else be taken away from men, and let this demon be satisfied, and then they will nearly be happy (D, 262).

Nevertheless, Nietzsche clearly has a psychological and a cultural principle underpinning his notion of power, and he is aware of Schopenhauer's 'will to' as a designator. But Nietzsche also realises this designator comes with metaphysical baggage, which will need to be stripped away in order to use it for a psychological purpose. I suggest this is why he does not use it here for he has not developed a framework for using it as a metaphysical principle, he only has power as a psychological principle so far. In 1881, Nietzsche appears to go no further in his deliberations about this. He says:

To carry out the task of re-establishing the laws of life and action is still beyond the power of our sciences of physiology and medicine, society and solitude: though it is only from them that we can borrow the foundation-stones of new ideals (but not the ideals themselves). (D, 453).

If we now return to McWhirter's (forthcoming) informative paper, we will see that much of Nietzsche's scientific reading in this area was undertaken by him in the mid-1880's. Rolph's aforementioned book was published in 1882, and Nietzsche comments on Mayer's book in March 1882 (Ibid). The necessary scientific research to substantiate the will to power as an underlying, empirically supported metaphysical principle is underway. It would seem to be the case that psychology is Nietzsche's gateway to discovering power as the underlying principle in human psychology, and thus he suspects in nature too, but without the appropriate scientific backing, he cannot make the will to power claim that provides our 'invisible' motivating principles from nature. It would indeed be 'crackpot' to do so.

14.5. The Joyous Science.

Nietzsche regarded *The Joyous Science* (1882): 'as the culmination of his authorship which had only truly begun with *Human All Too Human*' (Hill in Nietzsche, 2018, p xi). And as such, this book marks the end of his 'middle' period, and the birth of his 'mature' period. There are familiar themes within this work, but some are shifted or nuanced in new ways. Nietzsche uses the term 'herd' a lot to refer to society or community. In the very opening of aphorism 1, contrary to *Daybreak* and its power principle in human nature, he now has the preservation of the human race as the one task we are all engaged with. This suggests the power/life distinction which of course marks his major break for Darwinism, is still not entirely settled in his mind. Nietzsche calls it the '*nature* of our species and herd.' He reiterates earlier ideas of the necessity of 'good' and 'evil' in the preservation of our species, remarking for instance that: 'Hatred, malicious glee, rapacity and ambition and whatever else is called evil belong to this remarkable economy of preservation'. In aphorism 4 he says: 'The strongest and most evil minds have thus far advanced mankind the most: they ever rekindled slumbering passions'.

In aphorism 3, Nietzsche distinguishes the noble from the common with the use of passion, presumably the emotional drives and their intensity. He tells us, 'It is passion's unreasonableness, its being at cross-purposes with reason, which the common despises in the noble'. He then goes on to say. 'The taste of the higher nature is directed towards the exceptional, towards things that usually leave people cold and seem to lack sweetness; the higher nature has a distinctive standard of value'. Nietzsche has sneaked in a value judgement here, seemingly regarding the passionate as 'higher' than the reasonable or

reasoning. In aphorism 55 he expands this notion of nobility not to just following one's passions but:

Rather, the passion that agitates the noble man is, unbeknownst to him, a thing apart: the use of a rare and singular standard, bordering on folly; warming to things that feel cold to all others; divining the worth of things for which scales have not yet been invented; sacrificing on altars consecrated to an unknown god; a bravery that forgoes honour; an abundant self-sufficiency which bestows upon men and things.

Compare this with what he wrote in HTH 1, 493.

Nobility of character consists in large part of a good-naturedness and a lack of mistrust, and thus contains what greedy and successful people like to treat with superiority and scorn.

It would appear Nietzsche's ideas regarding the noble 'higher' person are changing or perhaps not yet settled or fully comprehended.

In aphorism 116 Nietzsche equates morality with the gregarious instinct, 'Morality teaches the individual to become a function of the herd, and to ascribe value to himself only as a function'. In aphorism 117 Nietzsche again seems to be suggesting that we are perhaps evolving from the herd mentality toward the individual:

But for the longest time in mankind's history there was nothing more terrible to a person than to feel separate. To be alone, to feel separate, neither to obey nor to rule, to signify individuality – that was not a pleasure but a punishment; one was condemned to 'individuality'.

Nietzsche later says in this passage:

Everything that harmed the herd, whether it was intended or not, caused in him a pang of conscience – and likewise in his neighbour, and indeed in the whole herd! It is in this regard that our way of thinking has most changed.

In aphorism 118 Nietzsche compares the cell transforming itself into a function of a stronger cell, but he does not seem to entertain the idea that two cells might come together out of mutualism and a greater combined power. It is surprising, given Nietzsche's insistence time

and again that we do not see these things in black and white terms, as fixed opposites, always with the need to relate opposites to harness their creative tensions, he does not seem to do so here. However, as I mentioned earlier, he does appreciate the power of co-operation. In aphorism 119 he tells us of peoples:

excess of energy and enthusiasm in their desire to be a function; they urge themselves to it, and have the keenest scent for precisely those positions in which *they* can be functions.

There is no indication here of ‘ressentiment’. Nietzsche is of the opinion that the great men of history who were regarded as ‘evil’ or ‘mad’ by the mediocre, common types, had to spur humankind forward to their greatest achievements.¹⁰⁴ If we consider our human achievement of setting foot on the moon as one of our great human accomplishments, we could commend Nietzsche for his insight. The motivation for this was born of national vanity and pride (evils) and the United States of America constantly losing out to the Soviets in the ‘space race’. But we probably would not concede that this was the result of *one* visionary ‘madman’, but perhaps the result of several visionary scientists, whose work may well have been dismissed as ‘mad’ by others before hindsight proved their theories. In these such cases where hindsight reveals that the ‘mad’ creative types—who had once been ostracised by society due to their visionary values—were actually arriving at new theories or practices that enhance society, we can see that, as Nietzsche rightly claims, our ‘evils’ give rise to our ‘goods’. Such geniuses may appear to us as extremely evil at the time, and may even inflict great pain on society:

These are the heroic men, those who *inflict the greatest amount of pain* on mankind, those few and rare men who need just the same apology as pain in general—and truly, it should not be denied them! They are powers for the preservation and advancement of the species of the first order, if for no other reason than that they oppose comfortableness, and do not conceal their disgust at this kind of happiness. (JS, 318).

Nietzsche is making the point here that just as pain is a ‘good’ for the body in helping preserve us, those who inflict pain on society are ‘good’ for that society.¹⁰⁵ But this equivocation is perhaps not as coherent as Nietzsche implies, for the fact that I can feel pain

¹⁰⁴ See ‘The Joyous Science’ 296.

¹⁰⁵ In terms of my example of the space race, we could mention Hitler as a useful illustration to the point Nietzsche is perhaps making here. Thus, if we dig further into the rocket’s genealogy, we might well credit Adolf Hitler and his drive for conquest as someone and something which spurred on the development of ‘super-weapons’ such as rockets and the need for nuclear bombs.

does not necessarily mean it is good or desirable to be in pain. However, as Nietzsche rightly suggests, it is 'good' to be in pain as it inevitably moves us to new and different levels or perspectives that we had not originally considered. It makes us more creative and therefore more powerful. Think of, for example, the athlete or soldier training, the musician practicing with sore bleeding fingers—their achievements are only meaningful against this pain or resistance. The chess grandmaster will take no joy in defeating the beginner. Our greatest accomplishments and joys can only come from suffering. Or as Nietzsche famously summarised '[w]hat does not kill me makes me stronger' (TI, Maxims and Arrows, 8). To avoid this suffering is to become a stagnant mediocrity. Both as individuals and as groups or societies. This is what makes Nietzsche's metaethics unique to my mind, for 'good' and 'bad' are aspects of the same thing, they both exist together as two sides of the same coin. The 'nature' of this coin as yet undetermined, but as I interpret Nietzsche, I sense that he suspects this nature is discernible through science.

In *The Joyous Science*, there are fewer mentions of power, compared to *Daybreak*, but it is still present—see, for instance, aphorisms 13, 84 and 192. Aphorism 84 is particularly interesting as Nietzsche extends the power motif into the arts and aesthetics, in this case to poetry. In aphorism 112, Nietzsche once again addresses the illusion of cause and effect and says 'we have done no more than perfect the image of becoming; we have not really fathomed what lies behind it'. He goes on to announce. 'Cause and effect: such a duality probably never exists; actually, what we have here is a continuum out of which we have isolated a few pieces'. To put it another way, the brain quantises things that are actually a continual 'flow' and if we could see this flow of events we: 'would reject the notion of cause and effect, and would deny all conditionality'.

In this book, especially sections three and four, I get the impression that Nietzsche is keen to deliver something he sees as important, he appears to me as akin to a prophet who is struggling to deliver a holy message, one that he feels may cause him to be ostracised by his readers or society. By this stage in his writing, Nietzsche has most of his philosophy crystallizing before him—he emphasises the need for 'flow' or flux and becoming, which replaces the cumbersome and 'clunky' formulations of being and cause and effect; it is a position which complements, what I have construed as his fatalism and denial of 'freewill'. For Nietzsche, 'good' and 'evil' are perspectives of the same thing, and the beginnings of two types of perspective—the gregarious herd type or functionary who still maintains there are enduring static values of good and evil, and the individualistic noble type, of which he

thinks the great men of history comprise, who relate to their experiences in terms of what is good and bad for them, personally.

According to Nietzsche, power is at the foundation of human psychology and in aphorism 341, he presents us with the eschatological idea of the eternal recurrence. With this notion, he seeks to abolish the metaphysical dualism of our phenomenal world and another transcendent world or an 'afterlife', with the idea that we only have this one world, and that this one world is in a state of continual repetition, whereby one lives life as one always has done over and over, *ad infinitum*. This notoriously complex hypothesis of Nietzsche has been interpreted in many different ways. I wish to interpret it as a vision of metaphysics that requires no God, no other worlds; it requires only a metaphysics of the kind I have been arguing for—a scientific metaphysics. I suggest that all Nietzsche has left to do to arrive at a model similar to mine is to join the power psychology to the flow and becoming of nature and to explain how the different perspectives of morality arise from out of it. Nietzsche now knows he's 'pregnant' and in the last passage of book four the waters break and the 'baby' starts to show its head. Its name is Zarathustra!

14.6. Thus Spoke Zarathustra.

The first two parts of *Thus Spoke Zarathustra* were written in 1883, and its style is notable for its exuberance and 'biblical' allegorical and metaphorical nature. It appears to be the explosive result of a build-up of ideas and feeling. The first big 'crystallized' revelation is in the prologue in passage 3, where Nietzsche alludes to the 'superman':

Behold, I teach you the Superman. The Superman is the meaning of the earth. Let your will say: The Superman *shall be* the meaning of the earth! I entreat you, my brothers, *remain true to the earth*, and do not believe those who speak to you of supernatural hopes!

Wrapped up in this idea is Nietzsche's dismissal of all Godly and other-worldly metaphysics and a commitment to try and understand 'man' from a scientific 'earthly' perspective. We previously saw in *The Joyous Science* his idea of eternal recurrence, and this also features in Zarathustra's teachings as a 'natural' replacement for the religious after-life. 'Man is a rope, fastened between animal and Superman—a rope over an abyss' (Z, prologue 4). Here Nietzsche is saying that man is in evolution between animal and the Superman. The full

qualities of the Superman are not required for our purposes yet, but suffice to say, it is an evolution toward a special kind of individual.

In passage 9 of the prologue, Zarathustra speaks of seeking companions or the like-minded rather than followers. He does not want to be a shepherd: 'To lure many away from the herd—that is why I have come'. He continues by making the point that the herd see themselves as the good and therefore will view him as 'evil'.

The passage entitled 'Of the Despisers of the Body' posits the idea that it is really the body that is the 'great intelligence' that rules our spirit and ego. 'Behind your thoughts and feelings, my brother, stands a mighty commander, an unknown sage – he is called Self. He lives in your body, he is your body'. Nietzsche is not positing a homunculus but that the body itself is 'Self', the 'dog that wags the tail' of soul, psychology and ego. Once again, he suggests, as I have done, that whatever instantiates human psychology lies in the physical and metaphysical processes inculcated and comprising the body.

The creative Self created for itself esteem and disesteem, it created for itself joy and sorrow. The creative body created spirit for itself, as a hand of its will. Even in your folly and contempt, you despisers of the body, you serve your Self. I tell you: your Self itself wants to die and turn away from life. Your Self can no longer perform the act which it most desires to perform: to create beyond itself. That is what it most wishes to do, that is its whole ardour.

This is a very interesting and astute passage. It links negative feelings such as depression with the 'Self' or the body's inability to create beyond itself, or as I will later explain, to discharge its power. In this sense they are linked to powerlessness, which also becomes for Nietzsche the basis of ill-feeling and discontent which will give rise to 'ressentiment'.¹⁰⁶

The first use of the term 'will to power' appears very discreetly in the passage 'Of the Thousand and One Goals'. Nietzsche is making the point in that passage that different peoples have different moral codes, so that how one set of peoples might not understand another set and may not comprehend their moral codes. He says: 'A table of values hangs over every people. Behold, it is the table of its overcomings; behold, it is the voice of its will to power'. In this first instance, will to power is used as a social phenomenon almost unconsciously slipped in or accidentally inserted with no attempt to explain it. Note also the

¹⁰⁶ See especially GM I, 10.

last part of this passage shows a clear understanding of what I referred to as 'lateral moral relativity' in 12.6. Later in the same passage Nietzsche says:

Truly, men have given themselves all their good and evil. Truly, they did not take it, they did not find it, it did not descend to them as a voice from heaven. Man first implanted values into things to maintain himself – he created the meaning of things, a human meaning! Therefore he calls himself: 'Man', that is: the evaluator. Evaluation is creation: hear it, you creative men! Valuating is itself the value and jewel of all valued things.

It is interesting if we compare the ideas here with Damasio's somatic marker hypothesis that I examined earlier and the idea that our feelings and emotions are evaluations. Nietzsche appears to be slowly progressing his ideas towards a consideration of the essence of self and life. We now only need to know what is the essence of man that is evaluating and what it is that is being evaluated, and we are introduced to this in part two in the passage entitled 'Of Self-Overcoming'.

Nietzsche/Zarathustra speaking to the 'wisest of men', tells them that their will to truth is a will to power, and: 'that you may understand my teaching about good and evil, I shall relate to you my teaching about life and about the nature of living creatures'. Then in the same passage:

Listen now to my teaching, you wisest of men! Test in earnest whether I have crept into the heart of life itself and down to the roots of its heart!

Where I have found a living creature, there I found will to power; and even in the will of the servant I found the will to be master. The will of the weaker persuades it to serve the stronger; its will wants to be master over those weaker still: this delight alone it is unwilling to forgo.

And as the lesser surrenders to the greater, that it may have delight and power over the least of all, so the greatest, too, surrenders and for the sake of power stakes – life.

Here Nietzsche begins his descent to the 'root' of life, and he expresses it as something empirical, which is to say, something to be considered and tested. He shows how the will to power here manifests within a hierarchy or 'pecking order', and how life is often surrendered for power.¹⁰⁷ He continues:

¹⁰⁷ Recall how I showed life is 'surrendered' for power through infanticide and homicide in sections 10.5 and 10.6.

And life itself told me this secret: 'Behold,' it said, 'I am that *which must overcome itself again and again*.

'To be sure, you call it will to procreate or impulse towards a goal, towards the higher, more distant, more manifold: but all this is one and one secret.

'I would rather perish than renounce this one thing; and truly, where there is perishing and the falling of leaves, behold, there life sacrifices itself – for the sake of power!

Here we are being told life is a development, an evolution. That the important thing is for life to continue, to 'overcome itself'. Life sacrifices its status quo in the name of power. For life to continue it must do so for the sake of power. Shortly after he says:

Only where life is, there is also will: not will to life, but – so I teach you – will to power!

'The living creature values many things higher than life itself; yet out of this evaluation itself speaks – the will to power!'

Here Nietzsche tells us what is doing the evaluation, it is the will to power. Life is the will to power and in *The Joyous Science* aphorism 109, Nietzsche has previously said:

The astronomical order in which we live is an exception; this order, and the considerable time which it requires, has again made possible that exception of exceptions, the development of organic life. The overall character of the world, however, is from all eternity chaos; not in the sense of a lack of necessity, but in the sense of a lack of order, structure, form, beauty, wisdom and whatever else our aesthetically attractive human qualities are called. The failures are by far the most numerous, **the exceptions are not the secret purpose**; and the whole music box perpetually repeats what should never be called melody – and finally the very expression 'failure' is already an anthropomorphism which implies censure. But how could we presume to blame or praise the universe! Let us beware of imputing to it heartlessness and irrationality, or their opposites; it is neither perfect, nor beautiful, nor noble, nor wishes to become any of these things; it by no means strives to emulate man! It is by no means subject to our aesthetic and moral judgments! It also has no instinct for preservation, indeed, no instincts whatsoever; it also knows no law. Let us beware of saying that there are laws in nature. There are only necessities: there is no one who commands, no one who obeys, and no one who transgresses. When you know that nothing is intentional, then you also know that nothing is accidental; for it is only where there is a world of intentions that the word 'accident' has any meaning. **Let us beware of saying that death is the opposite of life. The living is only a species of the dead, and a very rare one at that.** (my bold emphasis).

Clearly here, Nietzsche is making metaphysical claims about the nature of the universe—that life is not the secret purpose, and that there is any intended purpose, only necessities. But perhaps, most importantly, he is suggesting that life and death are essentially the same, part of the same necessities or processes comprising the human condition, which Nietzsche identifies in *Thus Spoke Zarathustra* as the will to power. This is why, I contend, that Kauffman asserts, ‘What then ultimately is the answer to Pilate’s question? It is: truth is will to power. Thus – by my reading at any rate – spoke Zarathustra’ (Kauffman in Nietzsche, 2003, p 26). I would agree with Kauffman’s assessment. It is much more than just a claim about life, Nietzsche understands the problems of defining life and understands that it must be continuous with the inorganic (the dead).

Contrary to the claims of many scholars, Nietzsche does not, I think, assert that power is something which we should value. Rather, I contend, he is saying that values are themselves an expression of power.¹⁰⁸ Nietzsche continues:

You exert power with your values and doctrines of good and evil, you assessors of values; and this is your hidden love and the glittering, trembling, and overflowing of your souls. But a mightier power and a new overcoming grow from out your values: egg and egg-shell break against them. And he who has to be creator in good and evil, truly, has first to be a destroyer and break values. Thus the greatest evil belongs with the greatest good: this, however, is the creative good. (Z, Of Self-Overcoming).

And in the passage ‘Of the Tarantulas’, Nietzsche puts equality in tension with power, ‘And ‘will to equality’ – that itself shall henceforth be the name of virtue; and we shall raise outcry against everything that has power!’ Nietzsche has in mind the socialists and their desire to redistribute power from the powerful to the masses in ‘equality’. Again, Nietzsche does not see the ‘mob’ as a powerful co-operating group but something trying to restrain the powerful out of envy. Although he tells us:

Life wants to raise itself on high with pillars and steps; it wants to gaze into the far distance and out upon joyful splendour – *that* is why it needs height!

¹⁰⁸ For example. See Leiter (2000) arguing against realist positions of a strong will to power, he often conflates manifestations of the will to power with desire for power as in the example I quote later in this thesis on p 234. Also see Midgeley (1995, p 161), where she accuses the Nietzschean position as a ‘species totally bent on power’, also see Clarke (1990, pp 211-212).

And because it needs height, it needs steps and conflict between steps and those who climb them! Life wants to climb and in climbing overcome itself.

We can now read will to power as life, and understand that it will always seek the next most powerful manifestation of itself, however Nietzsche doesn't see this next manifestation as the co-operating group from individuals, as I do with my model, but with the Superman. At least that is how I interpret Nietzsche. In part three in the passage 'Of the Virtue that Makes Small', Nietzsche rails against the moderate, submissive and mediocre, and aligns himself with the powerful 'individual': 'I am Zarathustra the Godless: where shall I find my equal? All those who give themselves their own will and renounce all submission, they are my equals'. They are his companions not his followers. In 'Of Old and New Law-Tables' passages 11-12, Nietzsche wants his new 'nobles' to oppose mob rule and despotism, his new 'gods but no God'. To 'become begetters and cultivators and sowers of the future —.'

With Zarathustra we have values as expressions or perspectives of the will to power and a call for the 'superman' or philosopher of the future to understand their foundations and to go beyond them in creating values of the future. Nietzsche now thinks we are in a position to go *Beyond Good and Evil* and begin contemplating a philosophy for the future. From here I will divide my overview of Nietzsche's developing philosophy into two parts. For the rest of this chapter, I will concentrate on the will to power and its importance to Nietzsche as a metaphysical principle and in the next chapter I will address master/slave morality and his moral philosophy and the reconsideration of it from our new perspective.

14.7. Beyond Good and Evil.

Beyond Good and Evil was first published in 1886 and it begins with Nietzsche castigating philosophers for their dubious metaphysical 'beliefs' in hidden worlds and different origins for good and evil and instead reiterates his idea of similar or identical origins.

In spite of all the value which may belong to the true, the positive, and the unselfish, it might be possible that a higher and more fundamental value for life generally should be assigned to pretence, to the will to delusion, to selfishness, and cupidity. It might even be possible that *what* constitutes the value of those good and respected things, consists precisely in their being insidiously related, knotted, and crocheted to these evil and apparently opposed things – perhaps even in being identical with them. BGE, 2.

Nietzsche continues in BGE, 3 with this theme of underlying valuations at the heart of our psychology: 'And behind all logic and its seeming sovereignty of movement, there are valuations, or to speak more plainly, physiological demands, for the maintenance of a definite mode of life'. Again, we can compare these ideas with Damasio's somatic marker hypothesis, for Nietzsche is questioning the absolute standard of 'truth' as the 'good' and in its place he is, perhaps, suggesting life preservation:

The falseness of an opinion is not for us any objection to it: it is here, perhaps, that our new language sounds most strangely. The question is, how far an opinion is life-furthering, life preserving, species-preserving, perhaps species-rearing; and we are fundamentally inclined to maintain that the falsest opinions (to which the synthetic judgements *a priori* belong), are the most indispensable to us; that without a recognition of logical fictions, without a comparison of reality with the purely *imagined* world of the absolute and immutable, without a constant counterfeiting of the world by means of numbers, man could not live—that the renunciation of false opinions would be a renunciation of life, a negation of life. *To recognise untruth as a condition of life*: that is certainly to impugn the traditional ideas of value in a dangerous manner, and a philosophy which ventures to do so, has thereby alone placed itself beyond good and evil. BGE, 4.

This point appears to be dangerous if we bear in mind that, for Nietzsche, life is the will to power. In BGE 13 he says:

Psychologists should rethink themselves before putting down the instinct of self-preservation as the cardinal instinct of an organic being, a living thing seeks above all to *discharge* its strength—life itself is *Will to Power*; self-preservation is only one of the indirect and most frequent *results* thereof.

Nietzsche is making an important point here. He asserts that the continuation of life is a consequence of the will to power and not the other way around. Will to power sustains life. It is a metaphysical principle that underpins life. In BGE 23, he reiterates that our path to understanding the 'fundamental problems' of life is through psychology. Unlike Schopenhauer, Nietzsche does not think the 'will' can be immediately known in its self, but 'known' through conditions and sensations, through cause and effect (BGE, 19).

In BGE 36, Nietzsche supposes that our emotions and 'impulses', including our thoughts comprise our 'reality' and not an illusion or representation of it. He then questions whether

we are entitled to claim that these are sufficient for us to understand the world, and that they comprise part of a 'mighty unity' and a 'more primitive form of the world':

which afterwards branches off and develops itself in organic processes (naturally also refines and debilitates) – as a kind of instinctive life in which all organic functions, including self-regulation, assimilation, nutrition, secretion, and change of matter, are still synthetically united with one another – as a *primary form* of life?

He then immediately answers this question by saying that:

In the end, it is not only permitted to make this attempt, it is commanded by the conscience of *logical method*. Not to assume several kinds of causality, so long as the attempt to get along with a single one has not been pushed to its furthest extent (to absurdity, if I may be allowed to say so).

Later in this passage he says:

The question is ultimately whether we really recognise the will as *operating*, whether we believe in the causality of the will; if we do so – and fundamentally our belief *in this* is just our belief in causality itself – we *must* make the attempt to posit hypothetically the causality of the will as the only causality. "Will" can naturally only operate on "will" – and not on "matter" (not on "nerves", for instance): in short the hypothesis must be hazarded, whether will does not operate on will wherever "effects" are recognised – and whether all mechanical action, inasmuch as a power operates therein, is not just the power of will, the effect of will. Granted, finally, that we succeeded in explaining our entire instinctive life as the development and ramification of one fundamental form of will – namely, the Will to Power, as *my* thesis puts it; granted that all organic functions could be traced back to this Will to Power, and the solution of the problem of generation and nutrition – it is one problem – could also be found therein: one would thus have acquired the right to define *all* active force unequivocally as *Will to Power*. The world seen from within, the world defined and designated according to its "intelligible character" – it would simply be "Will to Power," and nothing else.

Here we see Nietzsche's major modifications of Schopenhauerian metaphysics, as a supposition along the line that if we were to treat our qualia as reality itself not as a representation, and also as a causation itself, then our will and the 'Will' are synonymous, but in this case, Nietzsche's will is not a will to life per se, but the will to power. Here, I wish to claim that Nietzsche sees the will to power as a metaphysical principle, and in this

particular instance, it is proposed by him in hypothetical terms, and as a necessary foundation from which his moral philosophy is derived.

In BGE 259, in the context of the ‘noble’ person, Nietzsche reaffirms the above hypothesis as follows:

“Exploitation” does not belong to a depraved, or imperfect and primitive society: it belongs to the *nature* of the living being as a primary organic function; it is a consequence of the intrinsic Will to Power, which is precisely the Will to Life. – Granting that as a theory this is a novelty – as a reality it is the *fundamental fact* of all history:

Here Nietzsche pre-empts Wicken’s thoughts on ‘exploitation’ that I revealed in Chapter One, section 1.0. Finally, in BGE 186, Nietzsche treats the above hypothesis more like a fact. Speaking of Schopenhauer’s efforts in ethics he says:

it is well known that Schopenhauer also was unsuccessful in his efforts; and whoever has thoroughly realised how absurdly false and sentimental this proposition is, in a world whose essence is Will to Power.

Once again, he treats the will to power as a metaphysical concept.

14.8. On the Genealogy of Morals.

Nietzsche’s next work, *On the Genealogy of Morals*, published in 1887, was intended as a sequel and clarification to BGE. Once again, Nietzsche explicitly treats the will to power as a fundamental principle of nature and life. In section 12 of the second essay, Nietzsche explains how our interpretations of the purposes of things, such as our physical bodily organs, has no bearing on their origin. Thus:

the cause of the origin of a thing and its eventual utility, its actual employment and place in a system of purposes, lie worlds apart; whatever exists, having somehow come into being, is again and again reinterpreted to new ends, taken over, transformed, and redirected by some power superior to it; all events in the organic world are a subduing, a *becoming master*, and all subduing and becoming master involves a fresh interpretation, an adaptation through which any previous “meaning” and “purpose” are necessarily obscured or even obliterated.

He later says:

The “evolution” of a thing, a custom, an organ is thus by no means its *progressus* toward a goal, even less a logical *progressus* by the shortest route and with the smallest expenditure of force—but a succession of more or less profound, more or less mutually independent processes of subduing, plus the resistances they encounter, the attempts at transformation for the purpose of defense and reaction, and the results of successful counteractions. The form is fluid, but the “meaning” is even more so.

Here Nietzsche is telling us that the evolution of anything is in principle an interaction of different forces or power entities, being pitted against each other, continually creating new forms, again not restricting the will to power necessarily to life or psychology but, potentially restricting it to the fundamental processes of evolution and therefore ‘natural selection’ for it seeks to ‘subdue’. Nietzsche continues the passage by emphasising this fundamental principle toward expansion and growth as more important than ‘adaptation’. He acknowledges that his theory opposes the prevailing thought of his day: ‘the theory that in **all** events a *will to power* is operating’. (My bold emphasis). Finally, in this passage repudiating Herbert Spencer for a focus on adaptation to external conditions, Nietzsche tells us. ‘Thus the essence of life, its *will to power*, is ignored’.

In essay three, Nietzsche explains the origins and nature of the ‘ascetic ideal’ and its role in morality. Here it is worth looking at what Brian Leiter has to say about it with regard to his interpretation of the will to power as a power or will that is restricted to only a psychological principle operating in humans. Leiter writes:

Contemplative types, like the “priests,” defended their way of life through an embrace of the ascetic ideal: such an ideal both valorized *their* way of living and, in certain circumstances, made them fearful to others, who were frightened by the capacity of these ascetics for self-denial and self-torture. Philosophers, in turn, had to cast themselves in the role of existing ascetic types in order to have the opportunity to pursue philosophy. Thus by embracing the ascetic ideal, the philosopher achieves “the optimum of favourable conditions in which fully to release his power,” i.e, to be a philosopher. (Leiter, 2015, p 201).

Leiter then argues:

Notice that the doctrine of will to power that is at play in this argument is precisely the one that we argued in Chapter 4 (pp 115-16) was really paramount for Nietzsche: namely will to power as a psychological hypothesis about the best explanation for human action in most, if not all, cases. Thus, in the Third Essay, will to power is presented as an “instinctiv[e] striv[ing]” for conditions in which the agent achieves “his maximum feeling of power [Machtgefühl]” (GM III: 7). The talk here is of “instincts” and “strivings” and “feelings,” all familiar psychological categories, and all consistent with Nietzsche’s later characterization of the *Genealogy* as “studies by a psychologist” (EH III: GM). This way of reading the doctrine of will to power also saves it, happily, from the ludicrous extremes to which Nietzsche sometimes takes it in *Nachlass* material, where he experiments with the idea of will to power as a property of *all* organic life, and even of inorganic nature itself.¹⁰⁹ Returned to its rightful role as a psychological hypothesis, the famous doctrine of the will to power not only ceases to be a piece of crackpot metaphysical speculation, but also becomes a plausible competitor to psychological hedonism (Leiter, 2015, p 201).

I disagree with Leiter’s comments here and I find them incoherent when considered alongside my readings of Nietzsche, and also when read alongside Leiter’s own interpretations of Nietzsche elsewhere. Let me explain. Earlier in his ‘commentary on the Third Essay’, Leiter quotes the following from GM III: 7 ‘Every animal, including the *bete philosophe*, instinctively strives for an optimum of favourable conditions in which fully to release his power and achieve his maximum feeling of power’ (Leiter, 2015, p 197). But, as I wish to assert, the will to power is being extended by Nietzsche to *every* animal in line with his earlier writings. Leiter, later writes:

Nietzsche assumes that whatever explains “life” must also explain these particular instances of life which *appear* hostile to it. “‘Life against life,’” Nietzsche says, is a “self-contradiction” that “can only be *apparent*; it has to be a sort of provisional expression, an explanation, formula, adjustment, a psychological misunderstanding of something, the real nature of which was far from being understood” (GM III: 13). “Life,” of course, is rather vague, but we have already seen the explanatory constraint at issue: the doctrine of will to power of GM III: 7. If, in fact, “every animal” strives to maximize the feelings of power, then even those “animals,” like ascetic priests or the majority of mortals who embrace the ideal taught by the ascetic

¹⁰⁹ Leiter inserts a footnote here as follows “Even the illuminating account of will to power as a claim about “the essence of life” in Richardson (1996) ends up acknowledging that, while will to power may first-and-foremost be a property of drives, Nietzsche’s “interest is mainly in persons,” which are amalgamations of drives (1996: 44): and with persons, of course, psychological categories leap to the fore in explanation. On the other hand, the appeal to “power” in GM III: 7 is contra Richardson (1996:19-20), most naturally construed by analogy to psychological hedonism.

priest, *must fit within the same explanatory scheme*. (Leiter, 2015, pp 204-205). (My emphasis).

What is concerning, I contend, is that Leiter interprets the arguments that Nietzsche made in his *Nachlass* to have gone to 'ludicrous extremes'. But, Nietzsche makes similar points in his published work too. (GM III, 27). Leiter appears to be trying to 'twist' Nietzsche's theory into something it is not, and justifying doing so by what he calls 'this way of reading' Nietzsche, and, by the same token, regards unfairly what Nietzsche thought and wrote about in his *Nachlass* but also elsewhere as 'ludicrous' or 'crackpot'. Although Nietzsche lends himself to a variety of interpretations, which often contradict, due to his writing style and desire to offer competing perspectives, I find Leiter's interpretations disappointing as they verge on an attempt to rewrite Nietzsche.

Nietzsche's notion of the will to power in my reading is the means through which humans are traced back to nature. Humanity, psychology, life, and the world in general is, according to Nietzsche, the will to power. It is what underpins his moral philosophy, and that which underpins his conception of the 'superman' and 'eternal recurrence'. To present the will to power as only a factor of human psychology would present the will to power as a special case, and thereby disconnected to life and to the processes in nature. It would amount, essentially, to a creative, evolutionary and psychological 'miracle' at the rather 'fuzzy' junction between ape and human, and would be akin to the kind of metaphysics that Nietzsche disputes and wishes to replace with an empirically grounded, scientific based explanation or theory. There is no doubt that Nietzsche is mostly concerned with the psychology of people, and, in turn, how each psychology is itself a manifestation of the will to power from different power perspectives. But, as I have argued throughout this thesis, this psychological foundation is only made possible by the positing of the will to power as a principle inherent in life and nature more generally. By restricting the will to power to human psychology alone, it leaves us with an uncomfortable explanatory gap, as to why it applies only to humans? And crucially for Nietzsche, provides no grounds on which to revalue values.

This limited interpretation of Nietzsche's will to power has become the consensus interpretation within Nietzschean studies. For instance, it has found its way into dictionaries of philosophy. I find this disappointing, as it to some extent misleads those interested in Nietzsche's thoughts and philosophy in terms of the wider applicability and potentially vaster

scope of his thinking.¹¹⁰ It appears to me that Leiter wants to expunge one of Nietzsche's most profound philosophical insights and, in the process, considers himself as doing Nietzsche 'a favour'.

To my mind, Nietzsche's work demonstrates a developing confidence and excitement regarding his theory of the will to power, as one that relates his ideas to scientific theories.

14.9. Book Five of *The Joyous Science*.

Book five of *The Joyous Science* was also published in 1887, where once again Nietzsche speaks of:

The struggle for existence is but an *exception*, a temporary restriction on the life-will; the struggle whether great or small everywhere turns on predominance, on growth and expansion, on power, in accordance with the will to power, which is precisely the will of life. (JS, V, 349).

Clearly, here Nietzsche labels the will to power as identical with life, with all life!

14.10. *Twilight of the Idols*.

In *Twilight of the Idols* published in 1889, Nietzsche questions whether Darwin was correct in his assumptions about the 'fittest' or 'strongest' surviving, once again revealing Nietzsche's perceived paradox in nature, one that plagued his will to power theory as well. Speaking of the 'struggle for life', he says in the passage 'Expeditions of an Untimely Man', 14:

Supposing, however, that this struggle exists—and it does indeed occur – its outcome is the reverse of that desired by the school of Darwin, of that which one *ought* perhaps to desire with them: namely, the defeat of the stronger, the more privileged, the fortunate exceptions. Species do not *not* grow more perfect: the weaker dominate the strong again and again – the reason being they are the great majority, and they are also *cleverer* Darwin forgot the mind (– that is English!): *the weak possess more mind....*

¹¹⁰ For example see 'will to power' in Oxford Dictionary of Philosophy, 2008, p 387.

Once again, we see Nietzsche has the necessary thoughts to reinterpret scientific evidence to extend the will to power, the life principle, to the group, but he still seems to be thinking in terms of individuals, and so we have the paradoxical view that the weak dominate the strong, but, as I contend, the antithesis of this is the case. Nietzsche, I claim, has not accounted for the strength of a co-ordinated, co-operative group as a necessary step in his development of the will to power—even though this step is evident throughout the natural world, such as we have seen with the hymenoptera— some of the most prolific species on earth.

In the passage, 'Morality as Anti-Nature' passage 4 in TI, we find a rejoinder to those who fail to interpret Nietzsche's notion of will to power as a metaphysical principle, or who—like Leiter—believe the will to power was only intended as a psychological principle in humans:

I formulate a principle. All naturalism in morality, that is all *healthy* morality, is dominated by an instinct of life—some commandment of life is fulfilled through a canon of 'shall' and 'shall not', some hindrance and hostile element on life's road is thereby removed. *Anti-natural* morality, that is virtually every morality that has hitherto been taught, revered and preached, turns on the contrary precisely *against* the instincts of life—

It is worth pausing here to address what I think is Leiter's best argument against the strong version of the will to power as it, too, relates to the above passage. Leiter cites a quote from Nietzsche in support of his interpretation—it comes from A, 6, where Nietzsche says: 'where the will to power is lacking there is decline. It is my contention that all the supreme values of mankind *lack* this will'. Leiter makes the valid point. 'But if all actions manifested this *will*, then this *will* could never be found lacking' (Leiter, 2015, p 115). Put another way, how can the will to power create the anti-will to power? It is an impossibility. It is also absurd to suggest that the will to power lacks the will to power. This notion in Nietzsche's philosophy is, I contend, ambiguous and incoherent. Furthermore, this cannot be clarified or resolved with an appeal to a psychological interpretation because both master and slave are different aspects of the will to power psychology. In other words, this leaves us still with the question, where does Nietzsche get his grounds to pronounce one as lacking in will? It must be from the notion that the master seeks power for himself and the slave finds power through collaborators, a more distributive form of power. But Nietzsche would be in no position to judge either as natural or anti-natural without viewing nature itself as the will to power.

I think this passage demonstrates Nietzsche's struggle with his attempt to reconcile his theory of a weak slave morality with the fact that slave morality was dominating European society within his time. It is not, as Leiter intimates, proof that Nietzsche was not concerned with the notion of a metaphysical will. Nietzsche thinks that the impact of the teachings of the Christian Church is somehow eroding and coming into conflict with the metaphysical will to power and is, by the same token, 'anti-life' (see A, 7). He presents life as will to power, and he believes that the Church is 'anti-life'. This notion is problematic from a fatalist perspective as well, as I suggest, in the context of the above argument. Nietzsche did not have appropriate scientific evidence available to him at the time to fully reconcile Darwinian theory with a notion of a powerful slave morality.

Continuing with our review of TI, he expresses, too, a fatalism, which alerts us to the fact that a larger metaphysical principle is at work within his ideas:

What alone can *our* teaching be? —That no one *gives* a human being his qualities: not God, not society, not his parents or ancestors, not *he himself* (the nonsensical idea here last rejected was propounded, as 'intelligible freedom', by Kant, and perhaps also by Plato before him). *No one* is accountable for existing at all, or for being constituted as he is, or for living in the circumstances and surroundings in which he lives. **The fatality of his nature cannot be disentangled from the fatality of all that which has been and will be.** He is *not* the result of a special design, a will, a purpose; he is *not* the subject of an attempt to attain to an 'ideal of man' or an 'ideal of happiness' or an 'ideal of morality' — it is absurd to want to *hand over* his nature to some purpose or other. *We* invented the concept 'purpose': in reality purpose is *lacking*.

...**One is necessary, one is a piece of fate, one belongs to the whole, one *is* in the whole**— *there* exists nothing which could judge, measure, compare, condemn our being, for that would be to judge, measure, compare the whole.... ***But nothing exists apart from the whole!*** That no one is any longer made accountable, that the kind of being manifested cannot be traced back to a *causa prima*,¹¹¹ that the world is a unity neither as sensorium nor as 'spirit' *this alone is the great liberation* — thus alone is the *innocence* of becoming restored.... (TI, 'The Four Great Errors', 8) (My bold emphasis).

Also compare this with D, 48:

¹¹¹ First cause.

“KNOW THYSELF” IS THE WHOLE OF SCIENCE. – Only when man shall have acquired a knowledge of all things will he be able to know himself. For things are but the boundaries of man.

I have shown how Nietzsche asserts that we cannot separate human psychology from the rest of nature. The will to power is Nietzsche’s ‘unity’ in nature; it must apply to *everything*. Human psychology cannot be a special case treated in isolation from other organisms or from the natural world generally. The will to power must be a metaphysical principle for it to be considered a psychological principle at all. I find it improbable that Nietzsche would have entertained the idea of it as applying only to human psychology, given the passages I have highlighted from his work.

Were Nietzsche able to review the scientific and empirical findings available today—with, for instance, the importance and ubiquity of co-operation in nature and our findings on the development of the human brain from its base emotional motivators to the restriction and appropriation of those instincts to become social, a huge leap in power and adaptation—I suspect he would have considered reflecting further on—and possibly revising—his conclusions about what comprises ‘the weak’ in the human species. In other words, the ‘cleverness’ he speaks of in the weak is precisely the necessary cognition required to move the will to power and ‘life’ forward. It is not against life, nor could it ever really succeed if it were. In my reading, the egotistical, selfish mind is an earlier incarnation of the will to power; it is a parasitic drain on the more powerful group. I essentially agree with Nietzsche that ‘healthy’ morality is that which leads to the continuation of life, and which, therefore increases the overall will to power of the group, not an individual power, and this increase is always in a state of ‘becoming’. As Nietzsche says ‘one *is* in the whole’, and the whole *is* will to power. The selfish individuals are those who go against the ‘flow’ of ‘life’. Nietzsche does not recognise that the selfish go against life, but, on the contrary, he positions the selfish closer to life’s ‘instincts’. As I have argued, the selfish are an earlier ‘throwback’ incarnation, but this in itself means nothing in a ‘world of becoming’.

14.11. The Anti-Christ and Beyond.

The Anti-Christ was one of the last books published before his death in 1900, and there Nietzsche writes:

I consider life itself instinct for growth, for continuence, [sic] for accumulation of forces, for *power*: where the will to power is lacking there is decline. My assertion is that this will is *lacking* in all the supreme values of mankind – that values of decline, *nihilistic* values hold sway under the holiest names. (A, 6).

Here again is an expanded part of the passage quoted by Leiter above. I interpret it as further evidence of the strong version and that it is especially relevant to my argument and findings from Chapter One. I think it is quite a profound pronouncement for Nietzsche to make given the situation of his time. Again, we can regard his comments here to refer to power as a metaphysical principle in nature, and life itself as an instinct for the accumulation of forces.

The fact that Nietzsche intended to write a ‘magnum opus’ entitled *The Will to Power: A Revaluation of Values*, and that his preparatory comments for such a work described the will to power as an inorganic metaphysical principle suggests that he had been developing such a metaphysical concept for years. Indeed, I suggest that such an hypothesis naturally follows from his psychological insights, his scientific readings, his development of Schopenhauerian philosophy, his notions of fatalism, his notes and we find it in his latest work as one of his most prescient ideas.

According to Nietzsche, the metaphysical dichotomy between world in itself and world of phenomena is unnecessary and unhelpful. He therefore destroys the distinction between the two through his notion of ‘will’. All that we experience is a manifestation of ‘will’. In this respect, the idea of ‘self’ and ‘freewill’ can be regarded as mere expressions of this will. Ultimately, there is one will to power, which is expressed in a myriad of individual perspectives. This, I claim, is a metaphysical theory capable of empirical justification eradicating a need for ‘hidden worlds’.

14.12. Leiter’s Other Challenges to the ‘Ontological’ Will to Power.

Before we conclude this chapter, I wish to revisit Leiter’s remaining arguments against a ‘strong’ will to power interpretation. Leiter suggests that those who accept Nietzsche’s strong claims as I have presented them above, do so at face value. However, I would argue that these claims only appear to be superficial if one has not accepted the full extent and validity of the will to power within Nietzsche’s thought, and, by extension, how foundational it is for

Nietzsche's subsequent moral theory. If Nietzsche is to 'trace man back into nature', as he claims, Nietzsche needs to tie human psychology to the construction of human psychology through the body and the forces which created it.

Leiter suggests that Nietzsche never mentioned will to power as a 'fundamental principle' in his final book, *Ecce Homo* written in 1886, which comprises a series of new prefaces to his works. This is a non-philosophical argument and more about an interpretation of what Leiter thinks Nietzsche should be writing if he believed will to power was a fundamental principle. The absence of this concept within this work may suggest that Nietzsche was starting to doubt his theory of the will to power. It may be the case that he thought the books spoke for themselves and felt, therefore, that he did not need to draw further attention to his concept. There may be a host of other reasons. Nietzsche does say in 'Ecce Homo' the following:

Among my writings my *Zarathustra* stands to my mind by itself. With that I have given mankind the greatest present that has ever been made to it so far. This book, with a voice bridging centuries, is not only the highest book there is, the book that is truly characterized by the air of the heights—**the fact of man lies beneath it at a tremendous distance** (EH, preface, 4) (My bold emphasis).

Thus Spoke Zarathustra is the first book where Nietzsche explicitly reveals the will to power as the metaphysical principle and driving force of life, as something 'beneath it at a tremendous distance'—and that which Kauffman summarises as follows: 'What then ultimately is the answer to Pilate's question? It is: truth is will to power. Thus – by my reading at any rate – spoke Zarathustra' (Kauffman, in Nietzsche, 1969, p 26).

The above Nietzschean passage also refutes those such as Maudemarie Clark who choose to ignore *Zarathustra* and its blatant claims for an ontological will to power because they feel it is: '[n]ot in Nietzsche's own voice'. (Clark, 2000 p 120).

Leiter goes on to say, 'That this putative 'fundamental principle' merits no mention on either occasion strongly suggests that its role in Nietzsche's thought has been greatly overstated' (Leiter, 2015, p 115). But then in his next paragraph, Leiter concedes:

To the extent he [Nietzsche] sometimes seems to embrace this stronger claim,¹¹² we must simply take Nietzsche to have overstated his case for the reasons already given (something his penchant for hyperbolic rhetoric and polemics often leads him to do). (Ibid, pp 115-116).

As I interpret Leiter, he seems to want us to believe that Nietzsche is overstating his case, and that those who actually take Nietzsche at face value are also overstating the case. However, I have shown how Nietzsche's will to power metaphysics is fully justified, necessary and not overstated.

I have demonstrated throughout my thesis and specifically within this chapter, that arguments against the 'strong' version of the will to power, such as Leiter's, misunderstand the crux of Nietzsche's concept, and have not grasped the nature of the will to power as a 'fundamental principle' of life and the force which created it. This misunderstanding is further demonstrated, I suggest, in another of Leiter's arguments (one I alluded to in section 12.2). Leiter asks:

Do I manifest the will to power by showing up to teach my classes? By holding my office hours? Do I express a desire for power when I shop for groceries? Buy furniture for the house? Cook dinner? Surely the list of ordinary activities and actions that do not seem to be helpfully explained by reference to a fundamental drive for (or tendency towards) power could go on and on. (Leiter, 2000, p 286).

Leiter here appears to conflate manifestations of the will to power with a desire for power, revealing a misunderstanding of Nietzsche in my opinion. I have shown in Parts One and Two, supported by the work of Corning (1983) and Keltner (2017) how the things Leiter mentions are precisely manifestations of the will to power, but for clarity, one shops and cooks to maintain homeostasis, that is one's physical power, and social status can be attributed to the providing of food for others as well. A lecturer/teacher in a class has to some extent, an authority role over their students, and as such they manifest power and the power inherent in a 'will to truth'. If one is paid to teach classes one is acquiring money/status, which is, I argue, a proxy for power for it is necessary for you to provide for yourself, others and further influence the world around you. Furniture, too, provides for certain homeostatic needs such as rest with beds and chairs and with tables and kitchen furniture to prepare and eat food. These items can also comprise a social status element as

¹¹² Leiter here makes the following footnote citing. Z II: GS: 349; BGE 259; GM II: 12.

well as in 'designer' brands in addition to their obvious functional requirements. Leiter appears to be unaware of the ubiquity of power in the world and he sees it in superficial terms, as a desire one can choose to have or not to have. This may be because Leiter dismisses the strong version of the will to power: 'not a plausible doctrine' (Leiter, 2000, p 284), 'of dubious merit' (Ibid, p 281), and as I quoted earlier in the chapter, as 'crackpot' and 'silly'. He says all this of Nietzsche's fundamental metaphysical principle without reference to any naturalistic or scientific investigation. In this chapter I argue, by contrast, that Nietzsche did indeed intend a strong version of the will to power, and one based on accepted science and philosophical ideas of his day. To argue otherwise is, I assert, futile – even 'crackpot'! I will now turn my attention to Nietzsche's conceptions of master and slave moralities and how they require some modification in the light of science since his writing.

Chapter 15

The Re-evaluation of Nietzsche's Master/Slave Morality.

The chapters comprising Part One of this thesis, where I outline my argument that power underpins the development of human life and moral behaviour, supports key aspects of Nietzsche's philosophy, especially the case for the will to power as metaphysical principle, but also the notion that life can be reduced to the will to power and nothing else, and also the fatalism present in his accounts, and the universe as a necessary ever-changing 'becoming', and his conflation of cause and effect, and 'moral' outlooks. Similarly, to Thomas Stern's summation of Nietzsche's morality, I support the notion, as he puts it, that it is *'ethical to further the goals of Life and it is unethical to impede them'* (Stern, 2020, p 11).

This chapter is concerned principally with the key differences between Nietzsche's philosophical conceptions of power and morality, and the model I have presented in Parts One and Two of my thesis. My model requires a re-evaluation of the master/slave morality distinction and it is in this aspect that our respective philosophical models depart. This re-evaluation can be reduced to three main points, as follows. Firstly, Nietzsche tends to dismiss modern society due to its herd-like status, and this, I contend, effects his subsequent thinking about mediocrity, leading him to postulate a social drive toward mediocrity. I claim, however, that human societies, understood as social organisms, are not driven to mediocrity in this way. Secondly, while Nietzsche refers to the formal distinction between master morality and slave morality, my model suggests morality, although falling into two types, as Nietzsche suggests, is more clearly distinguished according to whether it is a morality of the parasite or a co-operator morality. Nietzsche's notion of master morality, I claim, has similarities with my notion of the parasitic invader or 'cancer' that attacks a co-operating community. It is, I claim, closer to this problematic phenomenon than it is a force that enables the adaption of a community in line with modern evolutionary theory. Thirdly, and most importantly, Nietzsche did not entertain the significance of co-operation between organisms in 'life', and therefore does not seek to apply it or give it prominence in his own moral theory. As such he does not postulate the 'social organism' as the next logical progression of the will to power in evolutionary terms. Instead, he urges his 'free spirits' or 'Supermen' to the 'flow of life' in the face of an 'anti-life' Christian morality—but as I suggest with my model, in promoting the individuals in this manner, it is contrary to the natural flow of life, and thereby, in effect, inhibits its natural progression. This leads in Nietzsche's model to

an incoherence which he never seems to solve, which is to say, on the one hand, both masters and supermen require the herd to achieve their status, but, on the other hand, he maintains that herd morality as 'anti-life'. As I have mentioned, it is unsurprising that Nietzsche's model is different to mine, not least because the scientific findings of his day did not understand the principles of co-operation between organisms to the extent that we do now.

This leads me to perhaps a fourth 'sub-point'. As I mentioned in the previous chapter, there is evidence to suggest that Nietzsche regarded the direction of evolution to move from the herd toward the exemplary individual rather than the other way around. If correct, this would explain why he focussed so much on the value of the individual rather than of the 'herd'. This argument features strongly in Gregory Moore's examination of the comparisons between Nietzsche's and Spencer's account of evolutionary ethics, where he suggests, '[w]hereas Spencer posits a gradual advance from egoism to altruism, Nietzsche argues the opposite: altruism is an underdeveloped form of egoism, the egoism of the herd.' (Moore, 2002, p 19). I am not entirely convinced Nietzsche thought of this as an 'evolutionary direction' so much as a desired direction for culture to take, and as a necessary preservation of the individual or genius for the 'good' of humanity in the face of an oppressive 'herd morality'. And this is why I have labelled it as a 'sub-point'. If Nietzsche did believe it is an evolutionary direction, his position is refuted by contemporary science and in this context, we need not concern ourselves further with his ethical thought, and neither should he for his exemplary individuals will, in this context, evolve naturally. The fact he did concern himself suggests he did not see this as an evolutionary direction.

15.1. Beyond Good and Evil.

When I contrast my model with Nietzsche's, perhaps the most noticeable difference is that Nietzsche does not allow for the selfish nature of groups. His notion of groups as herd-like emphasises, rather, their desire to undermine the master. He therefore worries that:

the herd-instinct of obedience is transmitted best, and at the cost of the art of command. If one imagine this instinct increasing to its greatest extent, commanders and independent individuals will finally be lacking altogether;

My model, however, highlights the important role that the group plays as a functional organism, which, as I have argued, requires co-ordination between all parts of society as well as commanders. In a social organism commanders and great individuals will not be resented but praised, only the parasitic types will be resented. In BGE 201, Nietzsche makes the point that the morality of the herd seeks to preserve the community by removing from it those who have 'strong' and 'dangerous' instincts such as:

the love of enterprise, foolhardiness, revengefulness, astuteness, rapacity and love of power which up till then had not only to be honoured from the point of view of general utility—

Such individuals are considered to be dangerous and immoral to the wider group/herd. Nietzsche continues:

How much or how little dangerousness to the community or to equality is contained in an opinion, a condition, an emotion, a disposition, or an endowment—that is now the moral perspective; here again fear is the mother of morals. It is by the loftiest and strongest instincts, when they break out passionately and carry the individual far above and beyond the average and the low level of the gregarious conscience, that the self-reliance of the community is destroyed; its belief in itself, its backbone, as it were, breaks; consequently these very instincts will be most branded and defamed. The lofty independent spirituality, the will to stand alone, and even the cogent reason, are felt to be dangers; everything that elevates the individual above the herd, and is a source of fear to the neighbour, is henceforth called evil; the tolerant, unassuming, self-adapting, self-equalising disposition, the *mediocrity* of desires, attains to moral distinction and honour.

Here we can see how his desire to identify human groups as 'herd-like' leads Nietzsche to assume that groups behave in such a way so as to maintain the status quo by seeking, for instance, principles of equality and altruism. But I think it is important to note that a herd could in theory be formed of entirely selfish individuals—as I have shown—all of whom are related by their common appreciation for self-preservation, power, enterprise and revengefulness. In such a scenario, the herd is established from out of their selfish motives, and through evolution, these individuals may grow into a social group. Humans live together as co-operative groups because a synergistic alliance provides more power to them, and as a result of this—as Nietzsche noted earlier—they have a greater chance of survival. Nietzsche does not appear to want to consider the notion that the 'herd' is valuable for the human race, and why it is beneficial for humanity for the herd to be protected from the

selfish individual. My research has deduced from empirical scientific studies that there is ample evidence to suggest that the human brain has evolved to be a systemising and social brain, and that the brain necessarily overrides its 'herd morality' for the benefit of the group in general. I explained this as an evolutionary requirement that moves from a position of subordination to that of a superordinate command and controller. The social organism requires commanders, while the herd does not.

I also argued that, as a collaborative organism, a group will not seek mediocrity (or even equality as such), but will seek out the best people for each function or role within the group. As groups have internal competition for roles, the group will trend toward 'loftiness', rather than mediocrity. It is the necessary foundation for a Beethoven, Napoleon or Goethe to exist. Nietzsche would agree with my points here, for his ideal society is pyramidal in shape, with the elite artists or leaders at the top, supported by the herd below. But Nietzsche worries that modern society fails to appreciate the importance of the masters and has sought instead to draw them back into the mediocre masses, so that there are no distinctive roles assigned—everyone is given the same role. But is Nietzsche right about this? Once again, I think Nietzsche sees the group dynamic not as co-operation between the few and the many but a tension between them, I think he applies a 'hen-like' hierarchy, a form of imposition on the many which in the social organism is not there. I would argue that the 'herd' is very appreciative indeed of their creative genius'. But here it is important for me to make a distinction that Nietzsche did not make. While Nietzsche would concede that the competition for roles within a social organism encourages a 'natural inequality', a 'meritocracy', and appreciates the value of the herd to support the elite masters in their creative endeavours, he would not necessarily agree that these elite leaders need to treat all functionaries or individuals of the group as equal in the smooth operation of the organism. If an 'unnatural inequality' is inculcated in the system—such as some people having an increased chance of taking the most prestigious roles or taking an unfair share of the rewards without the necessary talents or skills (such as through nepotism, inheritance, class or other prejudices)—then this is, I have argued, detrimental to the social organism. The organism not only becomes prone to, but actually encourages parasitism.

My arguments here are aimed at Nietzsche's mid to late period. If one were to look at the writings from his early period, Nietzsche and I are far more in agreement on the above points. For example, Jeffrey Church argues that Nietzsche understood the necessity of the

‘many’, both in terms of their importance for checking the ambitions of the few and for acting as a source of inspiration for the few. He says:

[T]he many becomes the wellspring of meaning from which the few arises. The many supplies the few with the common experiences, narratives, and understandings necessary for the few to cultivate an exemplary personality intelligible to others. The few cannot achieve greatness without the inspiration and recognition of the many. (Church, 2015, p 143).

Church argues that many of these early ideas also manifest in Nietzsche’s later writings.¹¹³ This raises the question as to what leads Nietzsche to come to regard the ‘many’ or herd as anti-life and speak so derogatively of their morality as I will shortly show? The answer to this lies in Nietzsche’s exploration into the foundations of morality and value. In his early writings he is heavily influenced by the philosophers who came before him such as Kant, Fichte and Herder, whilst diverging from their views in different ways, and in this respect, Church argues, freedom still plays a foundational role in Nietzsche’s ‘view of the good life’. (Ibid, p 57). That is to say, if I understand him correctly, the good life is the free, self-determined life and as Church says ‘in my view it [freedom] is the foundational value that ties Nietzsche’s project together and grounds culture ... or, in other words, achieving “freedom” – as the human *telos* and good life’ (Ibid).

I agree with Church’s interpretation, but my model sees freedom as best achieved through co-operator morality, whereas Nietzsche of course in his later works comes to view both ‘freedom’ and the ‘self’ as illusory, as I discussed, and instead posits the will to power as the foundational principle—a position which will, of course, underwrite any meaning about freedom and the ‘drives’ or ‘forces’ which constitute the ‘self’. This needs to be borne in mind when interpreting any later writings of Nietzsche where he speaks of self-determination and freedom. Indeed, I would argue it is more of an enlightened determinism than a ‘freewill’. The will to power ‘reasons’ its way through the ‘genius’ or philosopher to its most powerful expression as I have argued previously. For Nietzsche then the genius individual is the meaning of human life, and as he now views the world as different types of power manifestation without co-operation as a necessary part of life, the later Nietzsche has the ‘many’ or ‘herd’ type as something to be used, parasitised or overcome, as I will continue to explain.

¹¹³ See Church, 2015, Chapter 9, pp 231-245.

In BGE 242, Nietzsche sees how the democratisation of Europe gives rise to a type 'prepared for slavery' and that the 'strong' in these circumstances can become stronger still. Thus, the 'democratising of Europe is at the same time an involuntary arrangement for the rearing of *tyrants* – '. This, I suggest, is clearly an indication and recognition by Nietzsche of the danger of a kind of 'parasitisation' of the group in the above sense.

My notion of the 'parasite' in human society is evident in Nietzsche's description of the 'noble' from BGE 257, where he tells us:

Every elevation of the type "man" has hitherto been the work of an aristocratic society and so it will always be – a society believing in a long scale of gradations of rank and differences of worth among human beings, and requiring slavery in some form or other.

Nietzsche's interpretation of the origins for society contrast those that I have derived from the empirical findings of the natural sciences. In the same passage he tells us:

Let us acknowledge unprejudicedly how every higher civilisation hitherto has *originated!* Men with a still natural nature, barbarians in every terrible sense of the word, men of prey, still in possession of unbroken strength of will and desire for power, threw themselves upon weaker, more moral, more peaceful races (perhaps trading or cattle-rearing communities), or upon old mellow civilisations in which the final vital force was flickering out in brilliant fireworks of wit and depravity. At the commencement, the noble caste was always the barbarian caste: their superiority did not consist first of all in their physical, but in their psychical power—they were more *complete* men (which at every point also implies the same as "more complete beasts").

Nietzsche seems to suggest that the noble caste acts as if a parasite to the peaceful community, and that it is from this behaviour that the noble caste is able to raise this community to a 'higher civilisation', to a higher status. It is difficult to ascertain, however, what they can add to establish its 'higher' status. The 'barbarian caste' that he speaks of, appears to me at least, to require a community to 'parasitise' or rule over; it is difficult to see, therefore, how the noble caste is able to maintain its self-sufficiency and individualistic enterprise. Furthermore, it is difficult to see what 'complete' in this context means, unless the barbarian is also evolutionary more advanced. Interestingly, in BGE 258 Nietzsche openly identifies the noble caste as parasitic:

The essential thing, however, in a good and healthy aristocracy is that it should *not* regard itself as a function either of the kingship or the commonwealth, but as the *significance* and highest justification thereof – that it should therefore accept with a good conscience the sacrifice of a legion of individuals, who *for its sake*, must be suppressed and reduced to imperfect men, to slaves and instruments. Its fundamental belief must be precisely that society is *not* allowed to exist for its own sake, but only as a foundation and scaffolding, by means of which a select class of beings may be able to elevate themselves to their higher duties, and in general to a higher *existence*: like those sun-seeking climbing plants in Java – they are called *Sipo Matador*, – which encircle an oak so long and so often with their arms, until at last, high above it, but supported by it, they can unfold their tops in the open light, and exhibit their happiness.

A quick check of a botanical reference will tell you the Sipo Matador is a parasitic plant that withers its host tree. Thus, in this context, whilst the aristocracy is healthy, the society or community that hosts it withers. The aristocracy in this case, according to Nietzsche, is comparable to a parasite with no obvious useful function: it is a social ‘cancer’. Yet Nietzsche, paradoxically, views them as ‘higher’ in status, with no real explanation of what is ‘high’ about it, beyond his general appeal for nobility as a greater cultural achievement. The parasite in this sense is self-defeating, as it destroys the very thing necessary to sustain it, exactly like a cancerous cell. Nevertheless, part of Nietzsche’s overall strategy is to argue that these kinds of ‘evils’ are what drives life and humanity to its greatest cultural achievements, that ‘evil’ is actually a necessary ‘good’. However, this requires us to see cancer as a necessary ‘good’, as something for us to strive against and overcome, rather than a deterioration in functionality and power. What I find problematic with Nietzsche’s model is that it requires us on the one hand to see the masters’ ‘choking’ the life of the herd, as something that is also furthering the goals of life, yet on the other sees the herd morality necessary to overcome the masters as ‘anti-life’. Even though he later readily admits the herd is required for the production of the higher types. (See A, 57). Once again necessarily pro-life.

Nietzsche is, however, on to something very important here. For, as I expounded throughout Part One, from the genome upwards, the will to power establishes the need for both that which is co-operative and uncooperative. If progression to the next level of power is dependent on an antagonist—something to be overcome—Nietzsche’s model is compatible with this state of affairs. Nevertheless, his conception of ‘slave or Christian morality’ as essentially ‘anti-life’ presents a conceptual difficulty within this scenario, for it is presented as

if it were simply the next level of power overcoming the older 'master morality'. To illustrate the point, we can reflect on an earlier example I used, of the coming together of states such as those forming the European Union and question whether this would ever have happened had Europe not suffered from the destructive activity of Hitler's Third Reich and the second world war. The perceived nationalist 'cancer' of Hitler's influence necessitated the union so that it could prevent such atrocities occurring again, thus with a view to overcome past failing in order to survive into the future. Perhaps our greed and excessive consumption will lead us to realise that our very existence as a species is in danger, thereby necessitating a global union in order to survive. Thus, the point here is that 'good' and 'evil' are effectively both in the service of the will to power.

In BGE 259, Nietzsche having used the parasitic plant analogy to represent the aristocracy, goes on to assert that a 'Will to the *denial* of life' is embodied by equality and by refraining from exploitation and violence. However, the continuance of the 'life' of the community requires the suppression of the parasite, because, he writes:

life itself is *essentially* appropriation, inquiry, conquest of the strange and weak, suppression, severity, obtrusion of peculiar forms, incorporation, and at least, putting it mildest, exploitation.

I do not disagree with this claim, for if the community cannot suppress or incorporate the 'masters', they will, I contend, wither and die. Notice here, too, that Nietzsche does not see co-operation as a necessary part of 'life', whereas I, by contrast, have sought to explain that such co-operation is absolutely fundamental to life. Nietzsche also extends these principles to the organisation itself, in the same passage to claim:

Even the organisation within which, as was previously supposed, the individuals treat each other as equal – it takes place in every healthy aristocracy – must itself, if it be a living and not a dying organisation, do all that towards other bodies, which the individuals within it doing to each other: it will have to be the incarnated Will to Power, it will endeavour to grow, to gain ground, attract to itself and acquire ascendancy – not owing to any morality or immorality, but because it *lives*, and because life *is* precisely the Will to Power.

Nietzsche here seems to comprehend the fact that a co-operating group can form a body to exploit and overcome others, and that this is itself an incarnation of the will to power, but he does not seem to go far enough to show that this 'higher' form of organisation requires

precisely that kind of morality that he regards as herd-like, gregarious or 'slavish' if it is to function properly. It cannot afford to be parasitised, but must overcome its parasites/masters, and Nietzsche seems to acknowledge that this is happening, but, contrary to my model, he regards it as something to avoid. In BGE 199, Nietzsche suggests that commanders may disappear altogether, or he says:

they will suffer inwardly from a bad conscience, and will have to impose a deception on themselves in the first place in order to be able to command: just as if they also were only obeying. This condition of things actually exists in Europe at present –

This problem seems to haunt Nietzsche for the rest of his life. For me, the problem can be formulated thus: if the slave morality is so weak and opposed to life, why is it so dominant over the masters? The group cannot survive with 'parasites' of a certain kind—a kind that consumes the bulk of resources to the detriment of the group that supports them. As I see it, the social difficulties that Nietzsche had witnessed in his own time and which have plagued recent political times, can be formulated in terms of the stronger 'slave', or as I would describe it, with the difficulties that arise when 'co-operator' morality overcomes the parasitic 'master' morality. As I wish to claim, the idea that 'life' seeks to overcome itself and thereby arrive at a new 'step' or level is compatible with Nietzsche's basic metaphysical idea, but the notion of a 'co-operator' morality—of the kind I have been arguing for—is more consistent with empirical scientific findings available to us today. According to such accounts, nature, natural selection or the will to power does not appear to care at all about any such notions akin to Nietzsche's 'higher' type; it is simply the case that if they are weaker than others, they will perish.

Nietzsche formally lays out the distinction of master and slave moralities in *Beyond Good and Evil*. In BGE 260 he links the 'noble' to the master. When describing his moral system of good and bad: 'the antithesis 'good' and 'bad' means practically the same as 'noble' and 'despicable'; the antithesis 'good' and 'evil' is of a different origin.' Nietzsche then lays out features associated with the 'noble', and all of them are values that we would associate with an egocentric perspective, which is to say, 'what is injurious to me is injurious in itself'. Indeed, Nietzsche claims that the individual 'is the *creator of values*. ... such morality equals self-glorification'. He continues:

The noble man honours in himself the powerful one, him also who has power over himself, who knows how to speak and how to keep silence, who takes pleasure in subjecting himself to severity and hardness, and has reverence for all that is severe and hard. “Wotan placed a hard heart in my breast,” says an old Scandinavian Saga: it is thus rightly expressed from the soul of a proud Viking. Such a type of man is even proud of *not* being made for sympathy; the hero of the Saga therefore adds warningly: “He who has not a hard heart when young, will never have one.” The noble and brave who think thus are the furthest removed from the morality which sees precisely in sympathy, or in acting for the good of others, or in *desinteressement*, the characteristic of the moral; faith in oneself, pride in oneself, a radical enmity and irony towards “selflessness,” belong as definitely noble morality, as do a careless scorn and precaution in presence of sympathy and the “warm heart.”

There is no escaping the fact that Nietzsche seems to be describing as noble what today we would call a ‘psychopath’ or someone with an antisocial personality disorder. Indeed, this is what one would expect given that, as I have explained, the noble figure in Nietzsche’s writings is ostracised from society, they are supposed prophets who exercise different ideas that are outside social norms. Nietzsche’s noble values support this idea; they are grounded in a lack of sympathy for others with a view to exercising one’s self above others. Nietzsche continues:

A morality of the ruling class, however, is more especially foreign and irritating to present-day taste in the sternness of its principle that one has duties only to one’s equals; that one may act towards beings of a lower rank, towards all that is foreign, just as seems good to one, or “as the heart desires,” and in any case “beyond good and evil”.

We cannot dispute the connection in behaviour between Nietzsche’s leaders and psychopaths, in this respect. I argued in Part Two of my thesis that power can affect people and drive them toward less empathetic, more ‘psychopathic’ behaviours, and perhaps Nietzsche is here confusing a cause with an effect. What he construes as a ‘master’ morality necessary for leadership, individuality and genius, maps on to the effect of the ‘hubristic spiral’ that I speculated about in 11.4. Similarly, ‘genius’ here is equivalent to the effect of a co-operator morality, which becomes ‘contaminated’ by a realisation of personal power—as explained by Keltner in *The Power Paradox* (2017) and Zimbardo’s *Lucifer Effect* (2007), which I discussed earlier. This explanation brings Nietzsche’s insight of a ‘master’ morality within the bounds of contemporary science. Furthermore, by doing so, it suggests a potentially devastating problem for Nietzsche’s contention that ‘master’ morality is a necessary ‘good’. Seen in the context of Keltner and Zimbardo, the master morality can be

construed as a pitfall of the individualistic genius, as something detrimental to the group and potentially to the genius. Anecdotal evidence supports this to some extent. For instance, how many geniuses can we think of who ended up destroying themselves by behaving as if they were beyond the laws of the 'herd' and indulged in self-destructive behaviour? The 'herd' morality in this sense can keep the genius 'grounded' and attached to reality. Similar to the ideas of the earlier Nietzsche as emphasised by Church (2015).

By contrast, Nietzsche's description of the slave is very challenging to those who have less power than the masters:

Supposing that the abused, the oppressed, the suffering, the unemancipated, the weary, and those uncertain of themselves should moralise, what will be the common element in their moral estimates?

Probably a pessimistic suspicion with regard to the entire situation of man will find expression, perhaps a condemnation of man, together with his situation. The slave has an unfavourable eye for the virtues of the powerful; he has a scepticism and distrust, a *refinement* of distrust of everything "good" that is there honoured—he would fain persuade himself that the very happiness there is not genuine. On the other hand, *those* qualities which serve to alleviate the existence of sufferers are brought into prominence and flooded with light; it is here that sympathy, the kind, helping hand, the warm heart, patience, diligence, humility, and friendliness attain to honour, for here these are the most useful qualities, and almost the only means of supporting the burden of existence. Slave-morality is essentially the morality of utility. Here is the seat of the origin of the famous antithesis "good" and "evil":—power and dangerousness are assumed to reside in evil, a certain dreadfulness, subtlety, and strength, which do not admit of being despised. (BGE, 260).

Nietzsche's presentation of the values endorsed by the master and by the slave signifies a point of departure between his model and my own. Thus, in Parts One and Two, I explained how empathy and sympathy are instrumental in the foundations of co-operation and the production of a cohesive group. I agree with Nietzsche, however, that —if the group is enslaved by a more powerful entity, resentful emotions will be triggered along with a desire to remove the parasitic force from the group. But we differ in so far as I wish to claim, contra Nietzsche, that slave morality is not created or triggered in direct response to the master. Similarly, for the master to be master, there must, I contend, be a co-operative group for the master to *exploit*. To put it metaphorically, I argue that the doves have no need of the hawk, but the hawk needs the doves. In my reading of Nietzsche, he seems unclear about the

necessary requirements for group formation. In *On the Genealogy of Morals* (1887) he is more specific on the origins of morality—and I shall address this shortly.

In BGE 262, Nietzsche suggests that individuals emerge from herds, and that with the individual a ‘more comprehensive life *is lived beyond* the old morality; the ‘individual’ stands out, and is obliged to have recourse to his own law-giving’. Nietzsche acknowledges here the notion that the strength of the group is no longer a necessary condition when there are no threats from neighbours. But, this scenario, although admirable, is unrealistic. After all, what would be required to establish a world where there were no longer threats between states? It would, as I have argued, require a blanket set of values and respect for all individuals within a global community; it would require, I have claimed, an emphasis on ‘co-operator’ morality. This would help counteract any moves toward the ‘parasitic’ master of the community, as these would be regarded as acts that undermine the thing necessary to bring it about. Group strength and co-ordination is not solely required as a matter of defence against other humans, but it is, as I have argued, crucial for survival in general, against other perceived threats such as natural disasters, for instance, viral pandemics or famines. People following their own individual selfish ‘laws’ will, I claim, potentially undermine the group as a whole.

BGE 268 is a fascinating passage. Nietzsche recognises there the value of survival in terms of homogenising in language and thought, which, he suggests will prevent communication errors or breakdown. As such, he can be seen, to some extent, to endorse natural selection’s drive toward a commonality or similarity in values. Nietzsche says:

The more similar, the more ordinary people, have always had and are still having the advantage; the more select, more refined, more unique, and difficulty comprehensible, are liable to stand alone; they succumb to accidents in their isolation, and seldom propagate themselves. One must appeal to immense opposing forces, in order to thwart this natural, all-too-natural *progressus in simile*, the evolution of man to the similar, the ordinary, the average, the gregarious – to the *ignoble!* –

Here we have a passage which, as I interpret it, refutes Nietzsche’s later claims about slave morality as ‘life-denying’. He recognises that the evolution of humanity is grounded within similarities between things, and the reason why this is the case, is due to natural selection and the creation of a more powerful entity. He recognises, therefore, why the egoistic individual is more likely to perish, and yet—contrary to my model, he refers to these

individuals as strong and noble, and, by the same token, he refers to those whom my model emphasise as the more powerful and likely to survive, as weak and ignoble. I find this stark contrast fascinating, but I find his model odd, given it goes against the grain of empirical scientific findings. From the perspective of natural selection, Nietzsche's conclusions are absurd for they suggest that those who Nietzsche suggests are noble and strong will fail to propagate, will be overwhelmed by those whom Nietzsche suggests are weak and ignoble, requiring 'immense opposing forces' to prevent their domination in this regard, Nietzsche's model endorses a 'moral system' that thwarts the natural processes of the will to power, and as such inevitably stands against 'life'.

15.2. On the Genealogy of Morals.

Nietzsche's work, *On the Genealogy of Morals* is an ingenious attempt to further explain the origins of morality. But, for a philosopher trying to 'trace man back into nature', he presents, to my mind, a surprising and rather contrived, almost 'unnatural' explanation. The reason I say this is that Nietzsche has seemingly sought—during his middle period at least— to wrest explanations for morality away from religion and toward science, yet within his later period he moves to a socio-psychological approach (as we find in BGE and GM). Furthermore, Nietzsche takes an etymological approach toward explanation even though he has had suspicions about the 'truth' content of language. In the first essay section 13 for example he speaks of the 'seduction of language (and the fundamental errors of reason petrified in it) which conceives and misconceives all effects'.

This linguistic problem, however, is precisely the point Nietzsche wishes to make in regard to the value and nature of 'moralities'—they are, he says, just expressions of power. He tells us:

Now it is plain to me, first of all, that in this theory the source of the concept "good" has been sought and established in the wrong place: the judgment "good" did *not* originate with those to whom "goodness" was shown! Rather it was "the good" themselves, that is to say, the noble, powerful, high-stationed and high-minded, who felt and established themselves and their actions as good, that is, of the first rank, in contradistinction to all the low, low-minded, common and plebeian. It was out of this *pathos of distance* that they first seized the right to create values and to coin names for values (GM I, 2).

Nietzsche goes on to say that,

(The lordly right of giving names extends so far that one should allow oneself to conceive the origin of language itself as an expression of power on the part of the rulers: they say “this *is* and this,” they seal every thing and event with a sound and, as it were, take possession of it.) It follows from this origin that the word “good” was definitely *not* linked from the first and by necessity to “unegoistic” actions, as the superstition of these genealogists of morality would have it.

Nietzsche here disagrees with those genealogists who think ‘good’ was originally a term for unegoistic behaviour, and his reasons are grounded within an etymological approach. But he himself points out the flaw in his own approach. The powerful get to invent the terms used. Prior to this work, Nietzsche has acknowledged that the origins of morality can be traced back to the animal, and the invention of language is a relatively recent thing in evolutionary terms, which means that the language of the ‘nobles’ may well have no bearing on the emotions and psychology of humans in general. That is to say, a parasitic class imposing itself on a co-operative group might well invent a language by regarding power as the ‘good’, but it might not be in accord with the feelings of the ‘dominated’ group. Their notions of ‘good’ are not in accord with the language of the ‘nobles’.

Etymology is not a reliable source for notions of ‘good’ and ‘evil’, but emotional reactions might be. In GM I, 6 Nietzsche describes the priestly caste and how it derived its value from notions of purity. He follows that in GM I, 7 with discussion of how easily the priestly values diverge from the knightly-aristocratic caste. Nietzsche speaks highly of the aristocratic values but not so much of the priestly values. He then calls the priests the ‘*most evil of enemies*’ on account of their impotence, and it is because of this that their hatred grows within them. This situation is played out again, Nietzsche claims, in the enslaved Jews who revolt against the Babylonians, and it was the Jewish priests who oversaw the revolt, Nietzsche says, who came to invert the moral equation as follows. Good = noble = powerful = happy = beloved of God. This is essentially the formulation of the ‘slave revolt’.

In GM 9, Nietzsche now confronts what for him must be a difficult paradox, as he tells us:

Let us stick to the facts: the people have won—or ‘the slaves’ or ‘the mob’ or ‘the herd’ or whatever you like to call them—if this has happened through the Jews, very well! In that case no people ever had a more world-historic mission. ‘The masters’ have been disposed of; the

morality of the common man has won. One may conceive of this victory as at the same time a blood-poisoning...

Nietzsche seems unable to follow the consequences of his own premises. Language is written by the most powerful, and the priests and 'slaves' have overpowered the masters and 'won' thus rewriting the language of morality and therefore they cannot be the most impotent but the most powerful. Yet Nietzsche conceives the slaves' victory as toxic, as a kind of poisoning. Having laid out the sociological roots of two types of morality, Nietzsche now takes us to the psychological roots.

Nietzsche uses the psychological emotion of *ressentiment* as the foundation of a new birth in values.

The slave revolt in morality begins when *ressentiment* itself becomes creative and gives birth to values: the *ressentiment* of natures that are denied the true reaction, that of deeds, and compensate themselves with an imaginary revenge. While every noble morality develops from a triumphant affirmation of itself, slave morality from the outset says No to what is "outside," what is "different," what is "not itself"; and *this* No is its creative deed. This inversion of the value positing eye—this *need* to direct one's view outward instead of back to oneself—is of the essence of *ressentiment*: in order to exist, slave morality always needs a hostile external world; it needs, physiologically speaking, external stimuli in order to act at all—its action is fundamentally reaction. (GM I, 10).

Given what Nietzsche has already said about 'life' and the world, this realisation of a hostile world is a fair correct evaluation of it. Nietzsche continues:

The reverse is the case with the noble mode of evaluation: it acts and grows spontaneously, it seeks its opposite only so as to affirm itself more gratefully and triumphantly—its negative concept "low," "common," "bad" is only a subsequently-invented pale, contrasting image in relation to its positive basic concept—filled with life and passion through and through...

Nietzsche has inverted the 'higher' 'lower' distinction and has introduced *ressentiment* as the transforming mechanism for the slave, its form of adaptive enlightenment. I would agree with Nietzsche here about the role of emotion that leads to *ressentiment*, however I disagree with him with regards to the distinctions he makes between 'higher' and 'lower'. This is because in Parts One and Two I argued that the social group is the highest form of power, and thus

the morality that sustains it must, too, be considered as the highest. When a group is parasitised by selfish 'masters', it will trigger emotions akin to resentment within the group and it may lead—at least in organisms with the capacity to think methodically—to ressentiment and thus to actions that seek to eradicate or restrict the powers of those 'masters'. This may lead to the establishment of organisations or institutions, which act as alternative power domains, such as unions or Churches.

In Nietzsche's model, life is the will to power and humans are expressions of this will to power. Any person who 'loses' out in life's conflicts will inevitably seek the next best expression of this will. In my model, this next best expression is to find power in the co-operation with other apparent 'losers'. Within my model there will ultimately be more losers than winners, which in turn, will lead to the overpowering of the supposed 'winners', thereby inverting the whole 'winner' 'loser' designation. The 'winners' are the most powerful entity, the ones that can survive and replicate, they form the next 'step' or level of 'life'. This is, I claim, the ultimate 'judgement' of the will to power within life, within nature and natural selection. Nietzsche's model does not lead to similar conclusions, and this is due to the fact that he does not regard co-operation as a fundamental part of the will to power. Slave morality, in my model ends up being far more powerful and life preserving than master morality, and in securing the next step in the will to power. 'Master morality', or the selfish individual, in my model is that which is replaced and overcome as evolution progresses. Following my analysis, we are still left wondering how Nietzsche thought social groups came into existence in the first place. If altruism and equality are values created by resentment in a priestly class already in a society, then what brought the society together in the first place? This, I assert, is the true basis of morality.

Nietzsche provides a half-baked explanation in GM, II, 17:

the welding of a hitherto unchecked and shapeless populace into a firm form was not only instituted by an act of violence but also carried to its conclusion by nothing but acts of violence—that the oldest "state" thus appeared as a fearful tyranny, as an oppressive and remorseless machine, and went on working until this raw material of people and semi-animals was at last not only thoroughly kneaded and pliant but also *formed*.

I employed the word "state": it is obvious what is meant—some pack of blond beasts of prey, a conqueror and master race which, organized for war and with the ability to organize,

unhesitatingly lays its terrible claws upon a populace perhaps tremendously superior in numbers but still formless and nomad. That is after all how the “state” began on earth:

This is close to a reiteration of his hypothesis in BGE, 257 and HTH, I, 99. I shall now explain why I think this response is half-baked,

We are looking for the fundamental explanation as to why humans organised into groups. If the master race is not already organised, then in order to go to war, the masters have to learn how to co-operate together both martially and in a form of torture that brings about ‘civilisation’ as well as countless other things they must agree upon, such as equality in division of spoils, and they have to do this without language as language will only be useful as part of an organised group. Nietzsche’s answer is that the masters—those who are intrinsically selfish and egotistical—banded together, which is something they had never done before or needed to do, and they did so to ‘herd up’ a gigantic population of unorganised nomadic ‘semi-animals’ and then tortured them into an efficient civilised organisation, which the masters can then parasitise. In my summation, Nietzsche basically has a band of fleas coming together to invent a dog.

Our contemporary understanding of evolution has advanced significantly since Nietzsche’s day, with its ‘Lamarckian’ influences. To us, Nietzsche’s swift invention of the ‘state’ from uncooperative nomads may seem laughable. Indeed, the millions of years that would be required to first instigate empathy and sympathy in early mammals, and from there the development of systemised human minds is regarded by Nietzsche as something inherent—as if something that magically appears—in his loose population of nomads. We now suspect that our genetic ancestors were co-operating long before they developed into humans. If Nietzsche’s point is simply to note that some groups of humans are better organised than others and therefore more powerful, then that is a fair summation, which would then encourage us to look at the principles required in producing such a powerful social organism.

In Nietzsche’s scenario, the basics of ‘slave’ morality would have to be present already for the masters to be organised. The parasite cannot invent the thing on which it preys! As I have explained, co-operator (slave) morality, is formed over millions of years, synergistically, to create the group, which can be parasitised by those of an ‘earlier’ egotistical mindset (masters). In my model there is no requirement for a socially constructed ‘*ressentiment*’ from

the priests and an inversion of values. Social construction cannot be responsible for the construction of the social. Social constructions such as churches or unions, however, can be constructed by the social. Judaism and Christianity are products of a co-operator (slave) morality, not the inventors of it. This also reveals how Nietzsche's understanding of early human groups as 'herd' like, a 'shapeless populace' of 'semi-animals' and not co-operating social organisms, differs from mine.

This question begging has to some extent been present throughout Nietzsche's writings on morality. For example, in D, 9, Nietzsche says, 'where there is no tradition there is no morality'. Here, once again, he relies on social constructions, which leads us still needing an explanation for the construction of the social. My model fills this gap—our 'moral' foundations, we know from our evolutionary research, are empathy and/or functional synergies as the gateway to co-operation and thus to sociality and 'morality'. But it is its 'synergy' or power which perpetuates it.

I have shown how Nietzsche's genealogy is implausible from the perspective of empirical accounts of evolution. Although he has begged the question about the foundations of master/slave morality, I have attempted to show that his designations are, from a scientific basis at least, more accurately described as parasite/co-operator morality. Nietzsche's own descriptions of parasitic behaviours in relation to power is, to my mind, a really penetrating insight, which concurs with much scientific research. It helps to make sense of that part of the 'moral spectrum' I outlined in 10.3 that I mostly call 'immoral', which is to say, an earlier 'selfish' foundation to our psychology before we became social animals. I have shown how Nietzsche misunderstands the human group from this perspective, and thinks of them as 'herd like', leading him to valorise the emergence of 'free thinking' individuals.

Conclusion to Thesis

The purpose of my research was to try to solve what I called the Prime Ethical Mystery (PEM). Which consists of questions such as, what are judgements of good and bad/evil based on? From where do we derive moral 'oughts'? What is morality? In order to answer the PEM I determined that a holistic approach was necessary to explain the phenomenon of 'morality' and good and evil judgements, starting from the beginnings of creation itself to show why power was a fundamental 'drive' in nature which manifests in both inorganic and organic matter, this was achieved in Part One. Parts One and Two showed how our psychology is fundamentally linked to this power process revealing the need for Part Three, which was a review of relevant parts of the philosophy of Frederick Nietzsche, who first put forward power as a metaphysical principle an evolutionary driver and a foundation for human psychology. In line with Nietzsche, I too described this 'drive' as the 'will to power'. *Power* was my answer to the question of what fundamentally moral judgements and good and evil assessments are based on.

My research from Part One found that in line with the laws of thermodynamics, the universe is always 'trying' to dissipate energy gradients, that is to say, bring about equilibrium. We might call this overarching necessity or 'law' the 'will to equilibrium'. Where this is not immediately possible, such as in areas of continual energy release, such as our sun showering earth with energy and heating it, then in these non-equilibrium environments, where constraints allow, 'nature' will organise itself into ever-increasing complexities increasing the throughput of energy in the system. This involves an increase of power in the system, and I referred to this as the first manifestation of the will to power. In physics it is known as the Maximum Power Principle, but it is now usually referred to as the Maximum Entropy Production Principle (MEPP). This reveals that, where possible, 'nature' will try to organise itself to maximize the power in the system and entropy production. This system of organisation includes the ordering of atoms into constructions of greater complexity—a complexity that I have called a 'synergy fractal'. One of these 'complexities' is the formation of autocatalytic systems.

These dissipating, autocatalytic constructions, or cycles, apparently tend to amplification, because any degradation of a complex arrangement often leads to its extinction, thus selection takes place within the cycle. One widely accepted hypothesis within current

evolutionary thought is that these cycles were the beginnings of 'life' as we know it, with the development of a 'self', which embodies its own cause and effect—a self that I have referred to as an 'Autonomous Bio-Chemical Autocatalytic Dissipater' or ABiCAD. This self 'strives' to sustain itself and to increase its power in the overall system by means of replication, mutation and co-operation or 'symbiosis'. Continued existence becomes the 'prime value' or motivation of the 'self' by means of force. These processes eventually led to the first genes, cells and unicellular organisms. My evolutionary findings have revealed that the 'drive' toward more complex organisms is not a drive to fitness but a drive to power (after all, a unicellular life form is just as 'fit' if not 'fitter' than a human organism). This drive or will to power is compatible with the second law of thermodynamics, and the maximum power and entropy principles.

The natural world would seem to be in the ongoing process of building the largest dissipater it can, in the form of the biosphere and its respective eco-systems and trophic levels; it is not necessarily aiming to embody the fittest organism or variety of organisms that it can. Natural selection operates within and between the different 'trophic levels' with environmental feedback always 'sculpting' and providing constraints on what can survive, which is forever changing. Power often correlates to fitness, for only those things which can survive will survive, and the 'drive' toward more powerful organisms is a dynamic competition between organisms. All organisms need to be able to affect causation as they are all expressions of power. This I called the second manifestation of the will to power, it is also referred to as evolution by natural selection.

As mentioned, power can also be increased via co-operation and symbiosis as well as competition in nature. Corning's Synergism Hypothesis (1983) highlights this and is complementary to the overall 'meta-theory' presented here. This leads us to an important finding of my research: the 'synergy fractal' in nature. This provides the meta-physical 'power' framework that links 'co-operating atoms and molecules, through genes and cells to multi-cellular organisms such as apes and humans who co-operate to form groups, and so on, and it is in these groups that interdependence is realised and 'morality' is born. The inter-dependent group or social organism is a more powerful entity than an individual.

Another important contribution from this thesis is the recognition that a developing psychology cannot be directly related to 'fitness' but to power evaluations. From the developing unicellular organism upwards all 'information' required to maintain homeostasis

(survival) will be information about physical interactions such as internal chemical requirements for the ABiCAD leading to the ultimate development of 'qualia' such as feelings of thirst, hunger, pleasure and pain and evaluations of external forces that can affect the ABiCAD, leading to emotions. The developing psychology is one of power and status evaluations and this leads to our founding of good/bad assessments. A degradation in power and status is bad and an increase or maintenance of power and status is good.

In Part Two it was shown that in line with the evolutionary process and synergy fractal progressing to more powerful manifestations, the individual psychology must be modified to accommodate others and the group. This was shown to happen through the development of empathy and a theory of mind, to a systemised component of our psychology as humans, all of which play some part in our 'moral' decision making. Importantly it allowed us to make power/status evaluations of both other individuals and abstract entities such as groups and thus to ascertain the 'good' and 'bad' for them. Linking our 'moral' assessments, to a psychology based on power assessments

The links between power and psychology were further strengthened with my look into social psychology and the work of Stanley Milgram (1974), Philip Zimbardo (2007) and Dacher Keltner (2017) and how power dynamics affects the psychology and behaviour of individuals. This allowed me to make the claim that our psychology, both the conscious and unconscious, essentially our mind in totality, with its emotional, rational and imaginative elements, is the third manifestation of the will to power.

These findings allowed me to provisionally define the 'moral' good and bad/evil in power dynamic terms as the following. 'Good' is 'intended behaviour by an individual or group that increases the status of another individual or group while decreasing the status of the actor'; and 'bad' or 'evil' would therefore be 'intended behaviour by an individual or group that decreases the status of another individual or group while increasing the status of the actor'. In this case, status is a measure of power. It should be noted that there are always going to be energy transfers of one kind or another, such as contributing your power and energy to a collective effort or to helping someone else. Similarly, it should be noted that this is a superficial definition, as other factors also come into play. Thus, by contributing to a powerful 'synergistic' collective enterprise, the overall status of the contributor will actually increase. It may seem superficial or 'myopic' to claim that your status decreases when you pay tax, however with the contribution your taxed money gives to security, hospitals, better

infrastructure, social amenities (such as sports centres and libraries, schools), and so on, the 'energy transfer' you contribute gives rise to increased status for yourself and society. Secondly, an entity could just deliberately decrease some other entities status for fun, or just because they can, with no obvious increase in status. Perhaps even losing status in the process. Here we might even like to make a distinction between bad and evil. Where bad refers to my previous definition where at least the bad person gets a status increase, but here evil refers to where there is no status increase for either, just a purely psychological joy or 'schadenfreude', a rise in hubristic pride or self-esteem at the degradation of another.

Whilst good and evil judgements in general are power and status judgments about an entity gaining or losing status, 'moral' judgements are characterised by the exchanges involved in power and status between entities. This constitutes the conclusion and answer to the 'what is it all based on question'. However, we need to take into consideration all we have learnt to answer the question of where moral 'oughts' are aiming? Or the question of what we 'ought' to do? The meta-theoretical principle of maximum power and the 'prime value' of ABiCADs, as continued existence, align when we push our moral definition to its logical conclusion. Humanity working together as one global organism, preserves the eco-system that supports it, and this notion contributes to my need to redefine the moral 'ought' or 'good' as **'intended behaviour that is deemed most likely to continue the existence of humanity'**. Of course, knowing what this amounts to is another question entirely, and requires a commitment to learning and an accumulation of knowledge to ascertain the course of action that leads to the continuation of humanity. As mentioned in the introduction I am not too concerned with definitions especially within such a complex and intertwined subject area. I see the above more as 'stakes in the ground' rather than a full delineation of the area. I am more concerned with providing an explanation for the phenomenon of morality, which of course comprises the above.

The recognition of good, bad and evil judgements being reducible to power dynamic evaluations as well as the distinctions made in defining morality and its logical function and direction, I see as the most important contribution of this thesis to metaethics. I claim that it is an improvement on other attempts to define morality in terms of naturalistic phenomena, as those phenomena themselves such as happiness, pleasure, pain, etc are themselves further reduced into my theory and are shown as manifestations of the will to power. Likewise, I think this thesis provides a more comprehensive understanding of the links between power, evolution, fitness and morality than previous works on evolutionary

foundations to morality. I also claim it is an improvement on notions of morality being 'non-natural' as it brings morality firmly into the domain and understanding of well-known scientific processes.

As a naturalistic explanation this 'power theory' should potentially be a falsifiable theory and of course may well prove to be incorrect or only a partial theory in light of new scientific and psychological discoveries. Also, in this thesis I limited myself to explaining the moral and functional uses of the terms good and bad and avoided the aesthetic and other uses of the terms. However, the philosopher Friedrich Nietzsche who first coined the term 'will to power' was keen to extend it into the area of aesthetics and so whilst my concern was with the 'moral' question I am quite confident that areas of aesthetics can be brought into the 'power theory' as Nietzsche suspected. I will now turn to my conclusions resulting from my research into Nietzsche's philosophy.

My model, grounded in empirical scientific research supports Nietzsche's understanding of the will to power as the foundations of world and 'life' itself including psychology, and, furthermore, as the foundation of metaethics and morality. However, whereas he divided morality into principally two types, I did not, and I did not need to given that, as I have argued, for morality to have meaning, it must be integral to the continuation of life, especially the perpetuation of humanity. In my analysis I have shown that Nietzsche is in basic agreement with this claim, but he argues that 'slave' morality is anti-life, worrying that it will 'absorb' the genius individual into a mediocrity. I argue that this is incorrect and incoherent in Nietzsche's thinking as firstly the will to power cannot create an anti-will to power, life being the will to power. It creates the next more powerful incarnation, that being a 'social organism' through, slave/ co-operator morality. It is not a negative creativity but a positive one. In this light I argued that actually the 'master/parasite' 'morality' is anti-life. However, I too must acknowledge this is not the correct term as nothing can be anti will to power. The masters and slaves are in a power contest, the master morality represents the psychology of an earlier incarnation of the will to power, that of the individual, if the masters win then the social organism that supports them withers and dies, so the correct term for parasite/master morality is unadaptive. My research also shows that our psychology is not the dichotomy that Nietzsche suggests and that we are more of a mixture of the two. As the social organism requires leaders and followers the human needs a psychology that can adapt to be either. But the social organism's masters should not be selfish, purely looking out for their interests, but more like a 'social neuron' facilitating the needs of all the other people and the

functioning of the system. Secondly, herd morality cannot be anti-life if Nietzsche requires it to support or produce pro-life masters or 'super people'. This thesis highlights this incoherence in Nietzsche's thought.

I also argued that Nietzsche's genealogy of morality whilst ingenious, is actually implausible and begs the question as to the forming of organised human groups and states. Furthermore, whilst his slave/master morality distinctions have traction in modern understandings of psychology, they are not quite as he had anticipated and that the 'master morality' rather than being a requirement or cause for genius, could be, rather, an undesirable effect of neurology, such as psychopathy, or alternatively, psychologically caused by perceptions of increased status and pride that can be just as damaging to the individual genius as to the group. This represents a potentially fatal blow to Nietzsche's project of allowing two types of 'morality' and exempting the genius individual from the slave morality. I regard these 'updates' to Nietzsche's ideas based on scientific findings since his death as another important and original contribution of this thesis to the application and interpretation of Nietzschean thought.

Nietzsche for me is the first to solve the PEM, and he is so far ahead of his times in his thinking, as he is one of the first to examine in detail how power underpins our psychology and 'morality', and how we all have different perspectives of what best constitutes and expresses our power. He understands the problems inherent in the language we use, and how science can be a veritable path to arriving at a valid hierarchy of 'values' for the philosophers of the future or for our new leaders or 'super people' to employ. I think he was on the right track early in his writings, but was perhaps swayed by the science of his day with its focus on the power of the individual without the need to fully comprehend the significance of co-operation in nature—which as I stated, was not understood until the latter half of the twentieth century.

This thesis is important in bringing support to Nietzsche's ontological theory of the will to power and arguing that he could have only meant it as an ontological principle in order to realise his philosophical goals of tracing man back into nature and re-valuing values. I think this thesis at least gives the Nietzsche scholar, metaethicist, evolutionist and psychologist good reason to rethink some of their interpretations of Nietzsche and the foundations of evolution and human psyche and begin to take the will to power more seriously from a scientific perspective.

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