

THEOLOGY, ANTI-THEOLOGY AND ATHEOLOGY: FROM CHRISTIAN PASSIONS TO SECULAR EMOTIONS¹

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1. Introduction: What is "Atheology"?

This essay takes the form of an historical tale and three morals about the relationships that hold between the sciences and Christian theologies. The historical tale is a case-study in the history of psychology, namely the birth of the term "emotion". The nineteenth-century emergence of the concept of "emotions" in English-language psychology² and the concomitant neglect of older, theological categories of "passions" and "affections" of the soul is considered as an example of the displacement of Christian theologies of the soul by secular and scientific psychologies. The approach taken in tracing this transition has some similarities with that adopted by John Milbank in his analysis of the emergence of secular social theories and with Richard Webster's account of Freudian psychoanalysis.³ The first moral drawn below is about the merits and the limitations of their approaches.

Milbank and Webster both describe the rise of purportedly secular and scientific accounts of social and mental realities as being either theology or anti-theology "in disguise". Milbank succinctly summarises the basic approach in the introduction to his *Theology and Social Theory*:

By taking the reader through this genetic account, I hope to make it apparent that "scientific" social theories are themselves theologies or anti-theologies in disguise. Contemporary theologies which forge alliances with such theories are often unwittingly discovering concealed affinities between positions that partake of the same historical origins.⁴

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The emergence of a purportedly secular and scientific concept of “emotions” provides an occasion to re-examine this methodology with reference to a particular historical case-study.

The archaeologico-theological⁵ project engaged in by Milbank and Webster is potentially very fruitful, especially in terms of the new insights that it can provide about the relationship of scientific assumptions, models and metaphors to traditional theological categories and adaptations thereof (where such a relationship exists) but it is suggested below, for several reasons, that it should be pursued only with due caution and with a view to its own limitations.

In this study of the creation of the concept of “emotions”, the fruitful but sometimes over-ambitious methodologies of Milbank and Webster are modified by the addition of the category of “atheology” to their categories of theology and anti-theology in disguise.⁶ The importance of this modification is that it denies that “theology in disguise” and “anti-theology in disguise” are mutually exhaustive characterisations of secular texts. The category of “atheology” includes texts that are *untheological* and, as a subset, some texts that are additionally *quasi-theological*.

A crucial point to clarify at the outset is that in calling texts “atheological” I wish to *distinguish* them from atheistic or anti-theological texts. Atheological texts are alienated from the thought-world of traditional theologies but are not necessarily written in hostility to them and are not necessarily incompatible with theism. These senses of the term “atheological” will be returned to below.

The second principle moral that is drawn from this historical case-study is that in the historical and contemporary interplay between sciences and theologies, it is the atheological naturalistic *worldview* based on the assumptions and narratives of the natural sciences that is often most important, rather than the individual facts and theories of *empirical science*. The emergence of a physiologically conceived concept of “emotions” illustrates the fact that the rise of scientific modes of thought at the expense of theological ones is sometimes as much a consequence of adopting the assumptions and narratives of science as of applying the empirical *results* of science. Another way of putting this idea is that while in the past some “Science and Theology” writers have sought to find similarities between science and theology by treating them both as sorts of *science*,⁷ I propose to investigate the ways in which both can be seen as sorts of *theology*.

A third moral that is proposed is that it is a mistake to believe that the identification of scientific narratives as alternative “atheological” mythologies is an end in itself or a reason to dismiss science. Instead the identification of atheological myths and stories in science can be a first step towards a better recognition of the many roles positively fulfilled by science in areas that used to be theological preserves, and of the fact that different parts of the

sciences have different relationships with theological enterprises. There is not just one relationship that holds between “science” and “religion”.

The psychological texts considered in the first part of this essay are placed into three broad and sometimes overlapping categories. Some of the texts can be categorised as expounding a theological psychology (e.g., St. Augustine, Isaac Watts, Jonathan Edwards, Joseph Butler⁸). Others are anti-theological (e.g., Henry Maudsley⁹), and the third category of texts are those that are considered “atheological” (e.g., Alexander Bain, Charles Darwin, William James¹⁰). A theological psychology is one that privileges God; it is a psychology that describes the “mind”, “soul” or “spirit” as created by God and in the image of God, and which places concepts such as “passions” and “affections” within soteriological and Trinitarian narratives. An anti-theological psychology is one that explicitly rejects talk of God and the soul, sees such talk as improper to a description of mind and possibly as unscientific or primitive; such a psychology would generally be particularly hostile to theology in so far as it was perceived to concentrate on the soul at the expense of the body. Thirdly, as already suggested, an “atheological” psychology is one that is written without reference to God or the soul; it is a secular and often “scientific” psychology that seems simply to neglect or ignore the language and concerns of the religious traditions and to adopt instead an epistemology and ontology proper to certain scientific enterprises. Atheological psychology is indebted in complex ways to theological and anti-theological assumptions and categories but is more than the sum of those parts.

It has been proposed above that an important distinction needs to be made between empirical science and science-as-worldview. There is a corresponding difference in nuance to the term “atheological” when applied to these different incarnations of science. The detailed observational reports of experimental data and the technical theory-construction and mathematics of empirical science are almost always atheological in that they are simply conceived and executed in a way that has no thought for theological categories or narratives. The details of empirical science are atheological in much the same way that a recipe in a cookery book is atheological—both are, if you like, just “untheological”.

Science-as-worldview is a quasi-theological enterprise connected to scientific practice, which provides sets of assumptions and narratives about the universe, our place in it, and the proper way to gain knowledge about such things. Science-as-worldview is “atheological” (like empirical “cookery book” science, it is *un*theological) but additionally it is *quasi*-theological. Science-as-worldview, in providing overarching stories about life and reality, performs a very similar role to that traditionally performed by religion and theology. In using the word “atheology” to describe this enterprise, I wish to emphasise both its *similarity* to theology and also its *alienation* from the Judaeo-Christian theological resources from which it originally grew.

The “atheology” (a naturalistic quasi-theology without God) provided by some scientific writers is a particularly interesting kind of atheological writing—it is not just theology (in disguise) or its inversion, but it is *like* theology in important ways.

There are inevitably cases which do not clearly fall into any one of the simple categories of theological, anti-theological or atheological. Particularly interesting are cases of psychologies written with a relatively large amount of theological language—but theological language that sounds hollow or formulaic and seems not to be integral to the psychology. Use of theological language is the primary criterion for categorising a psychology as “theological” (rather than the beliefs of the author, for example), and the lack of any theological language in some of the texts described as theology or anti-theology “in disguise” by thinkers such as Milbank and Webster is one of the issues addressed in Section 6. While in a clear-cut case of a theological psychology the theological language is integral to the concepts and arguments of the text, in borderline cases the theology seems more like a superficial gloss. Those psychologies that use only occasional, thin or formulaic theological terminology are better considered to be “thinly theistic” than “theological”. In this way, the writings of Deists and natural theologians in the eighteenth and early nineteenth centuries (e.g., Charles Bell and Thomas Brown) constitute a half-way house between the theological psychologies of their predecessors and the atheological psychologies of their successors. Christology and Trinitarian theology are among the obvious omissions of such thin theisms.

So, another important distinction is that between “thin theism” and “full-blooded theology”. Generally, when I say that a text is “theological”, I will mean that it is “full-bloodedly” theological—that it is embedded in the language of a religious tradition. In this study the religious tradition in question is Biblical, ecclesial, Trinitarian Christianity. “Thin theism”, in contrast, is a term that picks out certain beliefs that include a God who is perhaps conceived of as “Deity”, “Architect”, “Author”, “Mind”, or as “the All”, but who is not described using the language and symbols of Christianity (or any other religious tradition). “Thin theism” in fact persists beyond the demise of natural theology. It includes the Spiritualism, Monism, Idealism, Deism, Pantheism and combinations thereof that were popular with many scientists (such as William James, Conwy Lloyd Morgan and, perhaps, Charles Darwin¹¹) at the end of the nineteenth century. The thin theism of these authors is much closer to being atheological than to being theologically grounded, even if it can be claimed that they had some form of theistic belief.

Atheological worldviews—quasi-theologies written in isolation from Christian theology—can take many forms, and can use stories derived from literary, philosophical, economic, political and sociological discourses as well as from natural science. David Ray Griffin, in his analysis of the place

of God in the postmodern world, singles out two of these: "Economics and natural science, buttressed by the philosophy of science, comprise the two main branches of the modern substitute for theology."¹² The particular sort of atheological writing that will be the focus here is the scientific and psychological. It was in the later decades of the nineteenth century that this sort of writing first became a real possibility, and it is for that reason that the nineteenth-century transition from theological talk of "passions of the soul" to purportedly scientific talk about "emotions" is an appropriate case-study to illustrate the birth of atheological psychology.

2. Eighteenth-Century Christian Psychology

In the eighteenth century, the people who taught and theorised about the passions and affections of the soul very frequently did so from within the Christian tradition—they were clergymen who were theologians, moralists and philosophers, but did not sharply distinguish between these disciplines. The Christian tradition, as taught in this era, described the passions as symptoms of man's fallenness, and his affections as signs of relatedness to God. Watts, Butler, Edwards and Wesley wrote about the passions and affections as part of a Christian theological psychology (they did not use the term "psychology" themselves, although some of their contemporaries referred to "Pneumatology"). Their distinction between passions and affections was particularly important. Besides placing these states in a moral and social context, this distinction gave the eighteenth-century Christian paradigm a subtlety and fullness that has been underestimated, and which was lost with the rise of a reductionist physiological "emotions" paradigm in the following century.

There are four points in eighteenth-century developments of classical Christian psychologies that merit particular attention. Firstly, these psychologies were *not*, as has often been suggested, based just on a simple contrast between "reason" and "passion". The reason/passion dichotomy was, admittedly one part of the Christian tradition and was still made forcefully by some¹³ but only occasionally to the exclusion of more subtle qualifications and provisos. Isaac Watts' popular treatises on the passions, written in the 1730s and 1740s, illustrate that the Christian view was never a simplistic or Stoical one of the need to govern and subdue all passions and affections. Watts did indeed warn against ungoverned passions. These, he said, "break all the bonds of human society and peace, and would change the tribes of mankind into brutal herds, or would make the world a mere wilderness of savages".¹⁴ But that was only half the story. On the other hand Watts advised that "cold and dry reasoning" was not sufficient to elicit the requisite "pious affections" of the virtuous life. Watts commended to his flock a middle way, a "warm and affectionate religion" that guarded against two undesirable extremes—cold rationality and over-zealous "abuses of the passions".¹⁵

The second point to be made about Christian affective psychology in the eighteenth century emerges from the comments quoted from Watts in the preceding paragraph. It will be noted that he distinguishes "passions" from "affections". The same was also true of Edwards and of John Wesley, who abridged Edwards' *Treatise Concerning Religious Affections* (1746) for his Methodist brethren. Passions are understood in the Cartesian sense of impressions made on the soul by the movement of the animal spirits of the body. Passions are seen in a generally negative light, they are impressed on the soul from without, against the will. When a subject is overcome by passions, Wesley says, "his mind is less in its own command".¹⁶ Wesley also insists that Jesus was not the subject of any passions, although he did have affections.¹⁷ "Affections" were understood in an altogether more positive way: affections were *voluntary* ("inclinations of the will" was how Edwards, following Augustine, defined them¹⁸) and were movements of the soul, towards or away from God. This distinction between involuntary passions and voluntary affections of the soul was one of several distinctions to be lost in the homogenous "emotions" paradigm that emerged in the second half of the nineteenth century. After around 1850, involuntary appetites, passions and commotions of animal nature as well as moral sentiments and voluntary affections, were all lumped together under the undifferentiated concept of "emotions".

In fact it is the very adoption by twentieth-century writers of this homogenous "emotion" concept that leads to misunderstandings of past views. Robert Solomon, in particular, has made this mistake. Solomon attacks an attitude that he calls the "Myth of the Passions". This attitude is one he ascribes to a "Western rationalism"¹⁹ that he feels perniciously dominates our attitudes to emotions. It is the belief (admittedly a major part of the Christian tradition from Augustine to Edwards) that passions are unruly tyrants who bully us into wrong-doing, and that they must be repressed, policed and restrained by the powers of reason and will. Solomon's aim is "to overturn the too-well-ordered and self-deceptive categories of 'reason' and 'the passions' in which the latter always receives both second billing and unchallenged critical abuse".²⁰ Solomon's rogues' gallery of rationalist passions-bashers includes Plato, Aristotle, the "Christian tradition"—from which Augustine and Aquinas are picked out for special mention—Shakespeare, Spinoza and Kant.²¹ Subsequently Solomon presents a brief discussion of the use of "passion" in English, French and German, noting correctly that it tends to have overtones of particularly troubling and violent commotions of the mind.

It is because of this history of the word "passion", embodying within it everything I wish to argue *against* ... that I have chosen it as the generic term to cover the entire range of those phenomena ... that may be said to "move" us.²²

And it is here that the mistake lies. Solomon is quite on his own in the history of thought in taking “the passions” to “cover the *entire range* of those phenomena that may be said to move us”. The passions, in traditional Christian psychology, form only a *subset* of those phenomena that move us. The affections, i.e., the voluntary movements of the soul, are the crucial second half of the traditional Christian picture. It is because Solomon erroneously supposes that the twentieth-century term “emotions” can be used as a near-synonym for the classical word “passions” (when in fact it covers many phenomena that used to be separated into passions on the one hand and affections on the other) that he makes these mistakes in his readings of the Christian tradition.

The same mistake is made by Amélie Oksenberg Rorty. She, like Solomon, supposes passions to have been conceived as mere “brute facts of the fallen condition—physical states with which a moral person must contend, and which he must redirect, control, transform or suppress”.²³ Firstly, passions are not primarily physical states in the Christian tradition, but states of the soul. In the classical Christian teachings of Augustine and Aquinas, passions are more clearly defined as movements of the soul that are (often) accompanied by bodily agitations.²⁴ Eighteenth-century thinkers, however, writing under the influence of Descartes, more often saw passions as necessarily caused by movements of animal spirits in the body. Even on the Cartesian model, however, passions are states of the *soul*, not physical states.

Secondly, while it is true that passions are supposed ideally to be subjected to the control of reason, it is misleading to overlook the other movements and affections of the soul that have traditionally complemented the passions. Rorty and Solomon both distort traditional Christian teaching by presenting only half of its affective psychology.

The third noteworthy aspect of eighteenth-century theological psychology is its emphasis on the relative importance of the soul and the unimportance of the body. Watts and Edwards both use a Cartesian definition of passions²⁵ in terms of the effect of the animal spirits on the soul. The focus of Edwards’ treatise, however, is the *affections*, which are to be understood as being quite independent of the body:

But yet it is not the body, but the mind only, that is the proper seat of the affections. The body of man is no more capable of being really the subject of love and hatred, joy or sorrow, fear or hope, than the body of a tree, or than the same body of man is capable of thinking and understanding. As ‘tis the soul only that has ideas, so ‘tis the soul only that is pleased or displeas’d with its ideas. As ‘tis the soul only that thinks, so ‘tis the soul only loves or hates, rejoices or is griev’d at what it thinks of. Nor are these motions of the animal spirits, and fluids of the body, anything properly belonging to the nature of the affections; though they always accompany them, in the present state; but are only

effects or concomitants of the affections, that are entirely distinct from the affections themselves, and no way essential to them; so that an unbodied spirit may be as capable of love and hatred, joy or sorrow, hope or fear, or other affections, as one that is united to a body.²⁶

The lack of interest in the body characteristic of this sort of theological dualistic psychology is, of course, in stark contrast to the approach of the physiological psychologists, whose category of “emotion” came to dominate in the later nineteenth century. As we shall see below, much physiological psychology was defined in part by its reversal of Edwards’ emphases—i.e., by its assertion of the central role of physiology in understanding emotions and an increasingly epiphenomenalist account of the mental experience of emotions.

The fourth and final element to be considered in this section is the social and moral context in which the passions and affections of the soul were understood by Christian thinkers in the eighteenth century. The work of Joseph Butler, along with that of the other influential eighteenth-century moralists, Lord Shaftesbury, Francis Hutcheson and Adam Smith, was in large measure driven by his opposition to the attempts made by Mandeville and Hobbes to reduce the human being to an exclusively selfish pleasure-seeking machine driven by ungoverned passions from one object of desire to the next.²⁷ One of the principal ways in which the moralists resisted the Hobbesian model was by drawing attention to the benevolent affections or “moral sentiments” of mankind.

For the moralists, virtue and nature coincide in the human being. Butler saw in the passions and affections of human nature for self (private affections) and for others (public affections) “only instances of our maker’s care and love both of the individual and the species, and proof that he intended that we should be instruments of good to each other, as well as that we should be so to ourselves”.²⁸ This distinction between public and private affections, between self-love and social benevolence, along with the theological framework in which it was placed, was another casualty of the dominance of a physiological emotions paradigm in the following century.

Butler’s view of the passions and affections was inherently theological—first and last these phenomena were instances of the love of God for individual and society. However his project was specifically a *natural* theological one. This meant that it came closer to Paleyan design theology than, for example, to a full-blooded Augustinian Trinitarian psychology. Butler, using the classic central image of natural theology, compares the human being to a watch and argues from its nature to its designer’s intentions and its purpose.²⁹ This natural theological approach was continued in the following century by Sir Charles Bell, in his influential design-theology-dominated book on the anatomy of the muscles and nerves involved in emotional expression.³⁰ Such natural theology often turns out to be a staging post on

the road to Unitarianism, unbiblical Deism, and ultimately agnosticism (as observations of mind and nature increasingly dominate at the expense of Scripture, tradition and doctrine). However, crucially, at the time of Butler, passions and affections were still theological categories. It was only when knowledge of emotions was primarily being generated by physiologists and by agnostic evolutionists that the potential long-term implications of adopting design theology started to become apparent.

This moral philosophy of the soul was intrinsically theological and yet at the same time contained the possibility of an atheological psychology. The Cartesian anthropology perpetuated by Edwards and Watts combined mechanistic physiology with soul psychology, even though the bodily aspect was played down by Edwards and others for the time being. And the design theology framework constructed by Butler and the moralists and by Paley and the scientific natural theologians would tend to encourage the production of detailed and fruitful physiological and psychological studies combined with ever-thinner theistic glosses.

3. *The Nineteenth-Century Transition from "Passions and Affections" to "Emotions"*

The question that was initially the driving force in this study was the very simple one of why it was that *circa* 1840 the terms "passions" and "affections" began to be displaced by the word that we now predominantly use to describe love, hate, jealousy, anger, joy, sorrow and so on, namely "emotions". Certainly one of the main factors in effecting this transition was a series of lectures published in 1820, the year that their author died. The lectures in question are the *Lectures on the Philosophy of the Human Mind* by Thomas Brown, Professor of moral philosophy in the University of Edinburgh. Although broadly within the tradition of Thomas Reid and Dugald Stewart's "common sense" school of mental philosophy, Brown also drew, unlike his mentors, on the "associationism" of Locke, Hume and Hartley, and on their empiricism. The *Lectures* was one of the most successful philosophy books of the period, going through nineteen editions.³¹ Most significantly from our point of view, Brown was the first major mental philosopher to replace "passions and affections" with "emotions" in his lectures. Further evidence of the importance of Thomas Brown's use of "emotions" is to be found in the fact that several authors of early treatises on "the emotions" (Brown himself never published a separate work specifically on the emotions) in the 1840s and 1850s make explicit reference to Brown's definition and classification of the emotions at crucial points in their texts.³²

There are two significant additional facts to be noted about Thomas Brown. Firstly, he was reputed to be religiously heterodox and, secondly, he was an advocate of a new "science of the mind". He wrote his mental

philosophy within the design theology framework that he shared with Butler, Paley and others but his is an instance of the somewhat formulaic or “thin” philosophical-theological language that I suggested in the introduction mark a text out as a transitional one between full-blooded theological psychology and atheological psychology. His references to God or the soul are relatively few, and his occasional references to the “divine Author”³³ strongly suggest some form of Deism; his text has no theological depth (in terms of doctrine or imagery) and, unlike the works of Watts, Wesley, Edwards and even Butler, Brown’s work relies on metaphysics in preference to Scripture and tradition.

The suspicion that Brown’s theology is somewhat superficial is reinforced by the testimony of authors of the period. Robert Blakey, in his *History of the Philosophy of Mind* (1848), gives a scathing opinion of Brown’s orthodoxy, or lack of it. First of all, Blakey impugns Brown for teaching what we would today call a “reductionist” philosophy of mind. He says that Brown’s theory is at least “nearly allied” with “the French theory resolving all knowledge into *mere sensation*”.³⁴ James McCosh, an orthodox thinker in the “common sense” tradition, whose own book on the emotions will be considered below, also thought that Brown showed a dangerous tendency towards “French Sensationalism”.³⁵ A second allegation against Brown was that the phrenologists (widely accused of materialism and atheism in this period³⁶) claimed his metaphysics as supportive of their own system. This was enough of an indication for many that Brown’s system must itself be theologically suspect. Finally, Brown is condemned for his Humean view of causation; this denial of efficient causality is thought by Blakey to lead to out and out atheism.³⁷ Looking back at the end of the nineteenth century, the agnostic thinker Leslie Stephen even judged that Brown had been an anticipator of Comte, describing him as a man “clearly on the way to positivism”.³⁸

Brown introduced the term “emotion” as part of what he saw as a “Science of the Mind”, and characterised his mental philosophy variously as “physiology of the mind”, “mental chemistry”, and “mental science”.³⁹ However, Brown’s “mental science”, like James Mill’s,⁴⁰ is a purely mentalistic and introspective discipline. It is a science, like chemistry or physiology, in that it analyses the whole into parts, classifies those parts and describes the dynamics of their interaction. But it is in no way a *physical* science—it has nothing to say about chemistry or physiology *tout court*, it simply analyses and classifies mental phenomena *qua* mental phenomena.

However, the “physiology of mind” rhetoric, designed to draw on the success and status of the scientific method, combined with thin and unintrusive theism, made Brown’s highly popular lectures a powerful paradigm for future atheological psychology. When the mental philosophy of Brown, the science rhetoric of Brown, Mill, Bain and others, and the natural theological neurology of Charles Bell were taken over by agnostic and atheist evolutionary scientists, the concept of “emotions” as understood

within an introspectionist, thinly theistic mental science paradigm was transformed into the atheological, sometimes anti-theological, secular psychological concept of emotions that was to dominate from the 1850s onwards.

There is only space here to describe briefly the principal pillars of the new evolutionary emotions paradigm. The three most significant pieces of work were Alexander Bain's book *The Emotions and the Will*, first published in 1859 and continuing through several influential editions until the end of the century; Darwin's *The Expression of the Emotions in Man and Animals* of 1872; and William James' article "What is an emotion?" published in *Mind* in 1884. The new paradigm was physiological, evolutionary and atheological. It displayed a marked increase in attention to the detailed physiognomy and physiology of emotions while replacing the old moral-theological stories about people as God's *creatures* with natural-historical ones about human beings as evolved *animals*. The Creator, at least for Bain and Darwin, was written out of the story, and the natural theological hermeneutic was replaced by an atheological (or, at most, as for William James, thinly theistic) naturalism. Scientific explanations of emotion were interpreted scientifically and evolutionarily rather than theologically.

In the evolutionary and physiological emotions paradigm it was increasingly outward bodily manifestations that were stressed at the expense of cognitive and phenomenological aspects. It is telling that Darwin's book on emotions was entitled *The Expression of the Emotions in Man and Animals*. This title illustrates not only the fact that talk of the affections of the soul (which are full of reason, above animal nature and distinctively human) was being displaced by talk of emotions (which are features of the behaviour of all animals, whether human or non-human), but also the fact that it was the *expression* of the emotions that interested the scientist. The inductive methodology that was so much part of the scientific tradition (especially in England) relied on *observations*, and the new physiological school of psychology eschewed mental introspection as an acceptable method of observation, unless correlated with behavioural and physiological data. Therefore, a proper scientific theory of emotions would consider them only insofar as they were physically, objectively observable phenomena.

While an emotion was defined primarily as a *mental feeling*,⁴¹ it was the physical disturbances and behavioural correlates of the feeling that these natural scientists of the mind could observe. Bain and James both note that inner mental states are not scientifically definable or describable, and that it is of the outward and bodily aspects of emotions that our knowledge is clearest.⁴² Both went on to categorise emotions, in practice, in terms of their observable physiological, expressive and behavioural dimensions. The epistemology of the new theorists thus shaped their ontology, as emotions were increasingly reduced to their observable physical components.

James' emotions were in one way the exact opposite of Edwards' affections. While Edwards had insisted that "an un bodied spirit may be as

capable of love and hatred, joy or sorrow, hope or fear, or other affections, as one that is united to a body",⁴³ James asserted the contrary.

A purely disembodied human emotion is a nonentity. I do not say that it is a contradiction to the nature of things, or that pure spirits are necessarily condemned to cold, intellectual lives; but I say that for *us*, emotion dissociated from all bodily feeling is inconceivable.⁴⁴

The body has been transformed from disposable contingent adjunct in Edwards' spiritualistic psychology to essential constitutive basis in James' evolutionary physiological psychology. This occurred in spite of the implicit (or sometimes explicit) endorsement of some form of dualism about the mental and the physical by Bain, Darwin and James. As noted above, Cartesian anthropology combined mechanistic physiology (which was generally neglected by eighteenth-century Christian thinkers) with soul psychology. The evolutionary founders of the emotions paradigm concentrated on Cartesian physiology rather than on the Cartesian soul. They had not yet reached the stage of denials of the reality of mind based on Behaviorism or brain science, it was rather that absolute precedence was given to accounts of the physiology correlated with mental emotions as opposed to accounts of mental phenomena *per se*. Body rather than mind was seen as the most important focus of a scientific study of mind. It was a short distance from here to the denial of mind associated with the rise of Behaviorism.

The replacement of passions and affections of the soul by physiological emotions looked to be complete in 1884. In that year a definition of emotion was provided in William James' article "What is an emotion?" James' answer to his question was that an emotion was nothing but the combination of various sensations resulting from bodily disturbances. The reductionistic and epiphenomenalist nature of the theory is all the more surprising, perhaps, coming from James, who was later to write the highly influential *Varieties of Religious Experience* (1902), a text altogether more sympathetic to the language of spirit. An emotion, nonetheless, was defined by him in 1884 as nothing but the felt awareness of an involuntary instinctive bodily reaction.⁴⁵ What had previously been designated the secondary physical "expression" of the emotion—observable visceral and behavioural changes—was now to be seen as the primary constituent of the emotion:

The more closely I scrutinise my states, the more persuaded I become, that whatever moods, affections, and passions I have are in very truth constituted by, and made up of, those bodily changes we ordinarily call their expression or consequence; and the more it seems to me that if I were to become corporeally anaesthetic, I should be excluded from the

life of the affections, harsh and tender alike, and drag out an existence of merely cognitive or intellectual form.⁴⁶

So emotions *per se* are not cognitive, let alone spiritual, but are merely the mental awareness of the setting off of an innate, inherited physical reflex.

Theories of the evolutionary descent of humans from lower animals were central to the new concept of emotion. From the third edition onwards, Bain's book contained sections incorporating the evolutionary work of Spencer and Darwin into his theory of emotions. While Bell had sought to illuminate all that was *distinctive* about human physiology and physiognomy and all that elevated spiritual humans above the level of mere animal passion, Spencer and Darwin, to buttress their evolutionary hypotheses, sought evidence that pointed to the close relation of man to other animals. Darwin, for example, compared laughter in man and monkeys to argue for a common progenitor.⁴⁷ In the margin of his copy of Bell's book on expression, next to the claim that humans have special muscles, lacked by other species, to express spiritual and moral feelings, Darwin scribbled "I suspect he never dissected a monkey".⁴⁸

The new view was that our emotions are nothing more than parts of our animal heritage, on a par with the affectionate behaviour of a cat rubbing against her owner. The old idea that gracious affections of the soul reveal the inclination of the will towards God was quite neglected. As Nietzsche succinctly put it in 1887, man "has become an *animal*, literally and without reservation or qualification, he who was, according to his old faith, almost God".⁴⁹ This was not a *scientific fact* as such but a consideration determined by the scientific narratives that were coming to dominate the European mind—narratives written by evolutionists and physiologists.

James McCosh, Calvinist, Christian evolutionist,⁵⁰ and President of Yale College, Princeton (what we now know as Princeton University) was one of many Christians who voiced reservations about the physiological approach to emotion. McCosh advocated a spiritualistic account of the emotions based on a *theological* dualistic anthropology. He complained of the tendency of "the prevailing physiological psychology of the day to resolve all feeling, and our very emotions, into nervous action, and thus gain an important province of our nature to materialism".⁵¹ McCosh, one might say, was the last of the old-school Christian psychologists (along with George Trumbull Ladd, perhaps⁵²). He thought and wrote within an eighteenth-century thought-world; he was a representative of a dying tradition that combined the introspectionist moral and mental philosophy of Francis Hutcheson and Thomas Reid with the evangelical theology of Jonathan Edwards.⁵³ But it was, as McCosh had feared, the reductionist physiological psychology of emotions (which was not, however, properly described as "materialist") that prevailed, and which continued to do so well into the following century.

So while a list of passions and affections of the soul from the start of the century and a list of emotions from the end of the century might contain many of the same items, such as anger, fear, joy, sorrow, hope, pride and so on, the underlying understanding of the person had been utterly transformed. The ultimate ground of passions and affections for Watts, Butler and Edwards was the love of God. These Christian psychologists, as a result of the sort of theological dualism they adopted, were often neglectful or even hostile towards the bodily aspects of affective states. The ultimate ground of emotion, for Bain, Darwin and James, on the other hand, was an inherited animal biology conceived without reference to a Creator.

At the end of the previous section we noted that the seeds for this process had already been sown by some Christian thinkers in the eighteenth century, particularly in their adoption of Cartesian anthropology and design theology. In James' theory of emotions the potential for interpreting mind as an epiphenomenon of a mechanistic physiology inherent in the Cartesian anthropology became a reality, and the effacement of scriptural and doctrinal theology was complete. The agitations of the human physiological machine that were, for Descartes and others the *causes* of passions in the soul, became that which in reality "*constituted*" emotions. The evolutionary psychologists replaced spiritual accounts with physiological ones and God with Nature. As institutional power and cultural authority passed away from moral-philosopher-theologians via natural theologians and deists such as Butler, Bell and Brown to agnostic scientists and psychologists such as Bain and Darwin, the model of the person that came to predominate was a secular, scientific and physiological one. With the rise of Bain's psychology and the emotions paradigm, the bridge had been crossed from design theology to no theology.

4. The Twentieth Century: The Turn Back to Cognitive Views

Psychological, philosophical and social-historical work in our own century has considerably broadened the extent of the concept of emotion. The narrow scientific approach of the positivist and proto-Behaviorist founders of the paradigm, while persisting to an extent in more recent neurological and physiological theories,⁵⁴ is now complemented by a broad range of less reductionist approaches. Recently, the social historians Carol and Peter Stearns have suggested that, "Despite continued dispute over the appropriate definition of emotions, a substantial consensus exists that emotions are not simply biological reactions."⁵⁵ In other words, the consensus of the late nineteenth-century has, broadly, been reversed.

In scientific psychology itself the idea of emotion has been broadened substantially. This is largely due to the rejection of Behaviorism and to the "cognitive revolution" in psychology. Psychologists of emotion such as Oatley and Scherer explicitly propose a "component" theory of emotion.

Their components include not only instinctive bodily responses, expressions and behaviours, but also cognitive factors such as appraisal as well as the subjective phenomenological tone of emotions.⁵⁶ The view that cognitive factors such as beliefs are important factors in emotions (or passions and affections)—a view quite common in the work of eighteenth-century writers such as Thomas Reid—has finally been rediscovered.

Philosophers have articulated this broadening of emotion in a similar way, reviving the cognitive Aristotelian view that emotions are based on beliefs. For example, anger is based on the belief that I have been insulted, fear on the belief that I am in danger, and so on. This cognitive view of emotion has been used by De Sousa and by Solomon to break down the alleged reason/passion dichotomy, which Solomon calls the “Myth of the Passions”.⁵⁷ As indicated above, however, this view is itself something of a myth. Christian writers from Augustine to Watts, Edwards and Wesley had a much more balanced view in which unruly passions were only half the story—these writers all acknowledged the virtue of many other affections and their essential role in a fully human life. What has happened is that philosophers have reinvented the richer and more balanced view of passions and affections that was lost as a consequence of the predominance of a narrow scientific view during the period between c.1850 and c.1930.

Solomon makes a Sartrean existentialist appeal to emotions as creators of meaning and value in our lives. Like Sartre, he thinks that emotions are ways that we transform the world, not ways that the world transforms our bodies.⁵⁸ It is interesting that in his project of enriching the idea of emotion, which he explicitly sees as a reaction against the physicalist definition of William James,⁵⁹ Solomon returns to using the more archaic term “passions”. “Our passions”, he says, “constitute our lives”.⁶⁰

Finally, social constructionist philosophers such as James Averill and Rom Harré and social historians such as Peter and Carol Stearns have drawn attention to the constitutive role played by the language, moral norms and institutions of different cultures in creating emotions.⁶¹ To take just one example, Peter Stearns has shown how evolving social norms of sexual fidelity, or the lack of it, have helped to construct the emotion of jealousy in new ways for successive generations in America.⁶² The social-constructionist project, like the philosophical one of Solomon, is in explicit opposition to the reductionist scientific approach of Darwin and James.⁶³ Harré proposes the view that socio-cultural phenomena are often “more basic” than biology in the construction of emotions.⁶⁴ The constructionist approach recognises again the important social and moral dimensions of emotions that were discussed by Butler and the eighteenth-century moralists in their analysis of the sentiments of man, in an age before the construction of a concept of emotion disconnected from its social and moral dimensions by natural scientists whose “objectivity” eschewed the inclusion of such vagaries.

5. *The Atheological Origins of Emotions*

It is hoped that this short history has shown, firstly, that the evolutionary emotions paradigm, developed by Bain, Darwin and James using a variety of sources such as the natural theology of Bell, the “mental science” of Thomas Brown, and the evolutionary psychology of Spencer, was ultimately an atheological one. Secondly, it was a narrow paradigm, shaped by an objectifying scientific methodology. It lost breadth and depth at the same time as losing the theological grounding of traditional teachings about passions and affections. Thirdly, the twentieth-century broadening of the emotion concept has seen much of the lost breadth and depth recovered but without the Christian theological grounding being recovered. Our current concept of emotion relies on atheological myths and models drawn not just from brain science, behavioural psychology and physiology, but also from cognitive science, existentialist and Anglo-American philosophy, and from social constructionist thought. These atheological resources form the basis of a fuller articulation of individual and collective emotional norms and experiences than was available a century ago.

I should repeat the distinction I would draw between a project being atheistic and its being atheological. I do not wish to claim, for example, that the evolutionary founders of modern psychology—Spencer, Bain, Darwin, James—were atheists. That was not the case. At most they were agnostics. And in some cases, such as those of William James, James Mark Baldwin and Conwy Lloyd Morgan, scientific psychologists held spiritualistic religious beliefs in consort with their scientific worldviews.⁶⁵ It is important to remember that the word “atheological” is used primarily to describe *texts*, and not their *authors* (who may or may not be atheists). Nineteenth-century evolutionary biologists—theists, agnostics, and atheists—all tended to produce atheological texts (i.e., texts that neglected the language and categories of traditional theology). While it is true that theological texts tend to be produced by theists, it is not always true that atheological texts are produced by atheists.

Even advocates of the ever-expanding domain of physical science such as Thomas Henry Huxley espoused some form of agnostic philosophical monism or idealism in preference to atheist materialism.⁶⁶ Huxley favoured using the *language* of materialistic science, and indeed claimed that the history of science revealed the progressive “extension of what we call matter and causation, and the concomitant gradual banishment from all regions of human thought of what we call spirit and spontaneity”.⁶⁷ Huxley, however, considered this to be a linguistic matter rather than an ontological one, and rejected the *philosophical* position of what one might call “Ontological Materialism”, instead remaining agnostic about the fundamental nature of reality. “In other words”, he explained, “matter and spirit are but names for the imaginary substrata of groups of natural phenomena.”⁶⁸ Huxley’s

“agnostic”⁶⁹ monism was typical of religiously sceptical scientists of the period (and also, as will emerge below, often of thinly theistic believers of certain sorts). “This union of materialistic terminology with the repudiation of materialistic philosophy”, Huxley told his listeners in Edinburgh in 1868, “I share with some of the most thoughtful men with whom I am acquainted”.⁷⁰ The agnostic monist Thomas Huxley would turn in his grave if he heard himself being described by his most recent biographer, Adrian Desmond, as “the materialist with a messianic streak”.⁷¹

So there were few, if any, atheist-materialists amongst the physiological and evolutionary scientists, but many Spinozistic monists, some of whom interpreted their monism theistically. There were also many dualist psychologists in this period, most of whom were what might be called “physiological dualists” rather than “theological dualists”—i.e., they privileged physiology and neglected soul psychology but did not altogether deny the reality of the mental. In a recent book entitled *From Soul to Mind*, Edward Reed infers from the religious or theistic beliefs of some of these figures that the nineteenth-century birth of scientific psychology was inherently theological and that “psychology succeeded in becoming a science in large part because of its defense of a theological conception of human nature typically associated with liberal Protestant theology”.⁷² Referring to the psychological doctrines of Darwin and his colleagues on the production of mental traits through sexual and natural selection, Reed comments:

Thanks to the positivist spin put on these studies, however, they were ultimately seen as *compatible* with belief in a soul—the new psychology was the experimental study of mind; it had no commitments to any particular doctrine of the soul.⁷³

Robert Richards has argued that the spiritualistic monism of these scientists “led to theism, not perhaps to religious orthodoxy, but certainly to a conception of God at work in the universe”.⁷⁴ And Leon Jacyna notes that the God of the monist scientists was certainly not “the God of the churches”.⁷⁵

On this issue of historical interpretation I side with Richards and Jacyna in emphasising the distance of these thinkers from orthodox Christian theology, and would draw attention to Reed’s apparent failure to differentiate between thin theism and Christian theology. Showing that psychological science was compatible with thin metaphysical religious beliefs—that nineteenth-century psychologists “tended to align themselves along a fixed deistic axis”⁷⁶—differs significantly from showing that psychological science succeeded because it was inherently theological.

Reed is mistaken on two counts. Firstly, scientific psychology of the later nineteenth century was not inherently theological—at most it was merely combined with Deism, pantheism or spiritualist monism (as Reed himself readily acknowledges). A “spiritual view of reality” is not the same as a

theological view of reality. “Spiritualism” as used by later nineteenth-century psychological thinkers was closer in meaning to what we might call philosophic “Idealism” than to any fundamentally religious conception. It was a term used to refer to an idealist rather than a materialist monism, not to a Christian rather than a secular methodology.

Secondly, Reed is wrong to think that a discipline would succeed in becoming a science *because* it adhered to theological views about human nature. Wilhelm Wundt, William James, James Mark Baldwin and the other pioneering scientific psychologists were all quite uninterested—*qua* scientific psychologists—in traditional theological anthropology, and their reductionist observational epistemology was quite out of keeping with traditional introspectionist Christian psychology.⁷⁷ Psychology succeeded in becoming a science, at least in part, because it denied the primacy of the soul affirmed by Christian theological dualism and adopted instead an objectifying “natural scientific” account of the human mind couched in quantifiable observations of brains, nerves, muscles, viscera and behaviour.

So the emotions paradigm was *atheological* in that it was constructed in isolation from the intellectual resources, models and stories of Christian theology, but it was not *atheistic* since it was compatible with, and was actually combined by some psychological scientists with, religious theistic beliefs.

6. *Are Theology and Anti-theology Mutually Exhaustive Categories?*

One concern of this paper, as was stated at the outset, is to assess the feasibility and desirability of the practice of unearthing, uncovering or revealing hidden theologies and anti-theologies in secular texts. The position taken here is that, while the approaches adopted by exponents of this archaeologico-theological method, such as Milbank and Webster, may often be fruitful, we should be sceptical about the stronger claims that are made to have discovered secret theologies, and, more often, anti-theologies—to have “revealed” assumptions, to have “unearthed” presuppositions⁷⁸—in what appear to be *atheological* texts; texts that just neglect or ignore religious traditions from which the authors are “benignly” alienated. Milbank, for example, taking on the entire edifice of “secular social theory”, claims to discover that “all the most important governing assumptions of such theory are bound up with the modification or the rejection of orthodox Christian positions”.⁷⁹

In reality (anti-)theological subtexts are often as inaccessible to the historian of ideas as the reality that underlies the “veil of phenomena” is inaccessible to the natural scientist. Some texts, of course, have very obvious subtexts—very obvious presuppositions and unspoken implications—but many others do not. It is in this very large latter category that we should be more cautious.

Bearing this caution in mind, there are some ways in which Milbank's type of analysis might be seen to be applicable to the case under consideration—the displacement of theological “passions and affections” by scientific “emotions”. Particularly in the later nineteenth century, fundamental assumptions were made in psychology that seemed to be inversions of earlier Christian ones. Whereas in Christian psychologies “affections” had been part of that higher soul that mark man out as superior to the brutes, in the new scientific psychology, “emotions” of all kinds were to be treated as the same in human and non-human animals alike. Christian thinkers had made the spiritual and cognitive elements of affections and passions primary and bodily changes secondary; William James' theory of emotions inverted this model. Jonathan Edwards taught that true knowledge of another's soul cannot be had by observing mere outward appearances:

Scripture plainly intimates that this way of judging what is in men by outward appearances, is at best uncertain and liable to deceit; “The Lord seeth not as man seeth; for man looketh on the outward appearance, but the Lord looketh on the heart” (1 Samuel 16:7).⁸⁰

In contrast the scientific epistemology adopted by the new psychologists gave priority to external observable correlates of emotions and considered knowledge based on outward appearances much less “uncertain and liable to deceit” than that gained by introspection alone. These, then, are some of the ways in which Milbank's approach of seeking out hidden anti-Christian assumptions in secular science might be applied to the emergence of the psychology of emotions.

Richard Webster, in his analysis of psychology and anthropology, adopts a methodology similar to Milbank's. In much the same way that Milbank tends to discover Nietzschean anti-Christianity hidden in secular human sciences, Webster in several cases discovers disguised versions of Judaeo-Christian anthropology itself. There are ways in which this analysis might also be applied to the emergence of the secular concept of “emotions”. One good example is William James' rationalism. In fact, the metaphors of the Jamesian theory—that emotions are constituted from “below” and from the “outside” by the involuntary activity of the viscera and the peripheral nervous system—are extremely close to the Augustinian model of the person in which reason and truth are to be found by turning inwards and upwards, ultimately towards God, while the passions are movements of the “outer man” who is fleshly, sensual and “below”. The fact that James, furthermore, does not consider reason or “cognition” to be an instinct or a peripheral phenomenon like emotion, but a cerebral function, suggests that his model of emotions is much like the traditional Christian idea of the passions. James himself explicitly

makes the analogy between modern scientific and classical Christian psychologies:

Cognition and emotion are parted even in this last retreat—who shall say that their antagonism may not be just one phase of the world-old struggle known as that between the spirit and the flesh?—a struggle in which it seems pretty certain that neither party will drive the other off the field.⁸¹

The traditional dichotomy between reason and the passions is literally embodied by James in the distinction between “cerebral” cognition and “visceral” emotion.⁸² Webster would, no doubt, find here the Judaeo-Christian God hidden inside James’ theory. On the other hand, the fact that James makes a fundamental mistake in identifying the distinction between works of the spirit and works of the flesh (which functions in the Christian tradition to distinguish between two different states of the *soul*—grace/salvation and nature/sin) with his reason/emotion dichotomy might argue against such an interpretation.

What emerges, then, is that secular and scientific theories of emotions that arise in the nineteenth century contain (at least) *both* anti-Christian assumptions and models *and* Christian ones. There are, however, problems and limitations connected with this method of interpretation, which will now be briefly articulated.

Firstly, it is hard to justify the reading of texts that are written with very little or no explicit references to God, the soul or any other traditional religious concepts, images or stories as theologies or anti-theologies—even if it is added that they are “in disguise”. Philosophers of science of this century have taught that scientific theories are always “underdetermined” by their data—any given set of data can be accommodated by an indefinite number of different theories.⁸³ The same flexibility is found at the next level up—at the level of scientific theories themselves. Theological or anti-theological worldviews are underdetermined by scientific theories. Just as one set of data can be used by many different theories, so any given scientific theory (or group of theories) is compatible with and can be accommodated and used by an indefinite number of different theologies or worldviews. This is why it is unconvincing to find too much *implicit* theology, anti-theology or metaphysics in any given text—because many *different* theologies or worldviews will be compatible with (or “implicit in”) any given text. Darwin’s *The Expression of the Emotions in Man and Animals* and Bain’s *The Emotions and the Will*, for example, are *compatible* with a reductionist atheist worldview or with a Christian worldview, and so it is impossible exclusively and confidently to “unearth” or “discover” any *one* theology or anti-theology in such texts.⁸⁴

This consideration of the plurality of implications and possible presuppositions of any given scientific text, and the multiple metaphysical

systems with which any text is therefore compatible, is another reason why it is often useful to concentrate on the "surface" of the texts under consideration rather than to "discover" hidden theology and ideology. There is no reliable way to discover and privilege any one hidden theology in one's reading of a text that contains little or no theological language.

Webster's treatment of the structuralist anthropology of Lévi-Strauss provides an example of this problem of the underdetermination of hidden theological theory by textual data:

Throughout his work, Lévi-Strauss implicitly characterises this "human spirit" in the same way that theologians have traditionally characterised man's God-given soul—it is orderly, chaste and rational, and apparently undefiled by any form of emotion and desire.⁸⁵

Lévi-Strauss' notion that the supremacy of the rational essence of human beings must be asserted despite the persistence of human violence, lust and irrationality is further compared by Webster to the Judaeo-Christian idea of original sin, which must be overcome by higher reason. Noting these broad similarities is relatively unproblematic but the question remains of how to interpret them. Webster acknowledges that the similarities are tacit rather than explicit and offers the following interpretation:

Because Lévi-Strauss is a rational intellectual living in the middle of the twentieth century he does not, of course, appeal to the doctrine of Original Sin ... But it is precisely because he is a rational intellectual living in the middle of the twentieth century that he does not need to. For both that doctrine and the Judaeo-Christian psychology which is associated with it have now become so deeply internalised into our habits of thought that they have come to form a kind of invisible intellectual environment from which secular thinkers may draw assumptions without ever recognising that they have done so and without it ever being noticed by their readers.⁸⁶

This is a curious interpretation of the implicit similarities between Lévi-Strauss' anthropology and certain theological ideas. If the texts in question are neither written nor read as theological and fail to use the language and symbols of any particular religious tradition then it is at best highly speculative to find in Lévi-Strauss' work, as Webster does, "concealed religious traditionalism". He also, on the basis of the fact that structural anthropology and psychoanalysis both divide the human being into rational and non-rational parts, claims that neither "can, for this reason, be seen as original or autonomous psychological theories. Rather they must be regarded as adaptations of traditional Judaeo-Christian psychology." In continuing to espouse some form of rationalism he contends that, in the twentieth century, we have "hidden God inside our theories".⁸⁷

It seems rather ironic that a book devoted to showing *Why Freud Was Wrong* should adopt so Freudian an approach to the history of ideas, making ambitious inferences as it does to invisible and unconscious forces at work in the creation of secular texts. Indeed Webster explicitly attacks Freud for his faith in “unseen powers and invisible beings”.⁸⁸ Yet, the section quoted above on Lévi-Strauss insists that neither the author nor the readers of a text need at any time be aware of any theological ideas for it to be true that the text is a piece of disguised traditional theology. The “invisible intellectual environment” seems just as ambitious and elusive an explanatory theoretical entity as any Freudian unconscious energies, drives and complexes. Perhaps we should say that Webster has hidden Freud inside his theory!

In cases such as these it is suggested that the appellation “theology in disguise” is not warranted by the evidence, which amounts to only very general observations of similarity between secular and theological texts, such as tendencies towards rationalism or dualisms. Instead, secular and scientific texts that seem to be quite neglectful of traditional theological language and ideas should be designated “atheological”. Being content in these cases to confine ourselves to a description of the observable surface features of a text is to acknowledge that a secular and scientific text may be compatible with a large number of different theologies, anti-theologies or worldviews and cannot reasonably be described as one or other of them “in disguise”, since that disguise would then in fact amount to total invisibility.

A connected weakness in Webster’s and Milbank’s claims that psychology, psychoanalysis, structural anthropology or sociology are theology and/or anti-theology in disguise is the implicit assumption that meanings exist independently not only of one particular form of words, but independently of *all* particular formulations. An archaeological account that finds crypto-Christianity (or crypto-anti-Christianity) at the foundation of atheological secular language must make the assumption that Christian teachings are not forms of words nor embedded in particular traditional textual narratives but are rather vague and free-floating relations between interchangeable words and concepts. This is an unpersuasive account of the nature of theological meanings.

A final limitation of the archaeologico-theological method is that whatever it may be able to establish in terms of relationships between theological and secular categories, it can never provide an exhaustive account. It could never reasonably be claimed that Marxist social theories or Freudian psychoanalysis, for example, were “nothing but” Judaeo-Christian theology or an inversion thereof. The strong polarity in the work of theologians such as Milbank and Graham Ward between the theological and the secular (the reality of the latter ultimately being denied) sometimes tends, however, to imply that the categories of “theological” and “anti-theological” are mutually exhaustive—that everything is either theology or its inversion.⁸⁹ It would

seem more plausible to suggest that secular disciplines more often rely on a mixture of sources, some theological, others anti-theological, still others a very long distance (in time and cultural space) from any theological ideas. This is indeed the pattern that emerges in the study of the creation of a secular psychological concept of "emotions"—Christian and anti-Christian assumptions, methods and narratives combine with some relatively autonomous elements of physiological science and mental philosophy to create a new secular concept. Atheological texts possess a degree of autonomy that is ignored by the division of secular psychology or sociology exclusively into "theology in disguise" and "anti-theology in disguise".

The description in this study of the physiological psychology of the nineteenth century and its descendants as "atheological" is intended to convey the fact that such secular enterprises, while borrowing certain categories and ideas from theological sources and adaptations thereof, are more than the sum of their parts. In the place of the metaphor of "disguise", a model of "emergence" is proposed.

The idea of "emergence", borrowed from the evolutionary biologist Conwy Lloyd Morgan, was initially applied to genuinely qualitatively novel properties (such as life or mind) that arise in the course of biological evolution.⁹⁰ Atheological scientific discourse was, in an analogous sense, an emergent feature of the intellectual evolution of the nineteenth century; it was the qualitatively novel product of evolving theological and anti-theological as well as atheological assumptions and metaphors. Atheological discourses are more than disguised composites of theology and its inversion—they are emergent features of cultural and intellectual evolution.⁹¹ Atheological psychology is no more theology and/or anti-theology "in disguise" than living things are collections of inanimate molecules "in disguise" or mind is matter "in disguise". The metaphor of disguise is rhetorically effective but tends to simplify unnecessarily the complex background to the emergence of atheological disciplines.

It may be that the use of "theological" and "anti-theological" as mutually exclusive and mutually exhaustive categories is more plausible for periods prior to the mid-nineteenth century. But from that period onwards a territory has opened up between the devotionally theological and the apologetically atheistic—the territory of atheological thought, in which stories and symbols are used in ways that are alien to (but are more than mere inversions of) the theologies of religious traditions. So, to take the case of late-Victorian psychologies of emotion, McCosh's psychology was apologetically theological: "Unless we place before the mind a personal, a living, acting, benevolent God, the affections will not be drawn towards him"⁹²; and Maudsley's was avowedly anti-theological:

The habit of viewing mind as an intangible entity or incorporeal essence, which science inherited from theology, prevented men from subjecting

its phenomena to the same method of investigation as other natural phenomena.⁹³

The “emotions” of Bain, Darwin and James, however, were conceived in the main, not as part of a theological or anti-theological project, but as part of a novel atheological narrative of mind as an evolved aspect of the human animal.

The secular sciences were unquestionably initially indebted in various ways to Christian theological enterprises, as Milbank and many others have successfully established. In the last century and a half, however, since the emergence of a newly aggressive and comprehensive evolutionary biology and psychology, scientifically grounded discourses have to a considerable extent broken free from their theological (or anti-theological) roots to establish an atheological tradition that is alienated from Christian theology and ignores rather than opposes its teachings and narratives.

7. Science-as-Worldview: The Positive Role of Atheology

The reflections in this final section on the quasi-theological roles played by science for the last century and a half arise from the preceding case-study of how shifts from theological to scientific assumptions and narratives created the intellectual environment in which talk of “passions and affections of the soul” could be displaced by talk of “emotions”.

In our own time academic philosophers and moralists have largely become alienated from Christian teaching and the development of the atheological ground between theologians and anti-theologians has been made possible by the development of an alternative hermeneutics. The hermeneutic resources that I am particularly interested in are those derived from science itself. Science since the age of Darwin has not been confined to Baconian observation and induction within a natural theological hermeneutic, but has had pretensions to take over the intellectual project of understanding as well as explaining (or, in short, the project simply of “narrating”⁹⁴) all of reality. Science-as-worldview⁹⁵ is an atheological set of hermeneutic tools within which the results of empirical science can be located—an alternative interpretational framework that has grown up alongside empirical science. The two-way relationship between the scientific worldview and particular scientific theories or groups of theories is analogous to the relationship that holds between theories and data. As noted above, this means that worldviews are underdetermined by particular theories in a way comparable to the underdetermination of theory by data.

The 1860s saw a new aggressive, expansionist attitude amongst some British scientists, especially Thomas Huxley, John Tyndall and Henry Maudsley. And since their time, science has produced its own particular worldview—an alternative theology in which God is replaced by Nature as the beginning and end of all things.⁹⁶ This worldview has two particularly

important components. Firstly, scientists, like theologians, make particular background assumptions that are fundamental to their faith (for example, that the world is governed by rational laws or that the most secure form of knowledge is that established by publicly repeatable experimentation). Secondly, specific branches of science have produced particular metaphors and stories that have a quasi-theological character. Cosmology and evolutionary biology are two of the best examples of branches of science that have produced “alternative theologies” centred around metaphors and stories such as the evolution of man from molecules, the selfish gene, the blind cruelty of nature, the adaptive advantage of altruism, the brain as a computer, the impersonality of the cosmic machine, the immortality of energy, the creativity of organised matter, the Creator-less universe, the ultimate destruction of our universe, and so on—that, more than in past natural theological eras, can provide a cosmology, a worldview, within which to place and understand scientific facts and theories, as well as everyday experiences.

While it may be a scientific fact that hydrogen and oxygen combine to form water, it is not a scientific fact that man is a machine, nor that the brain is a computer, nor that genes are selfish. Mary Midgley is one of the few philosophers to have drawn attention to the metaphorical and mythological nature of much contemporary science: “Any system of thought playing the huge part that science now plays in our lives must also shape our guiding myths and colour our imaginations profoundly.”⁹⁷

It is this development of science-as-worldview that I think is of interest today in the discussion of “Science and Religion”, rather than a discussion of “compatibility” or “consonance” between specific bits of physical science and a broad Christian theism. In the field of “Science and Religion” too much stress has perhaps been placed on the notion of “compatibility”. In the end compatibility is a rather weak claim. That evolutionary natural histories or physiological psychologies are “compatible” with theism of some kind is neither particularly surprising nor particularly important—it does not make these theories any the more theological. What is of more interest, then, is not the logical compatibility of scientific theory X with religious belief Y, but the way that stories told in the language of science have come to displace (or complement) stories told in the language of Christianity. The acknowledgement of the existence of the category of the atheological also draws attention to the large amount of science and psychology that is written not in tension with theology but in ignorance of it.

The greatest exponent of the “warfare” model in the nineteenth century debate over evolutionary science and religion was Thomas Huxley. He famously wrote, in his review of Darwin’s *The Origin of Species*:

Extinguished theologians lie about the cradle of every science as the strangled snakes beside that of Hercules; and history records that

whenever science and orthodoxy have been fairly opposed, the latter has been forced to retire from the lists, bleeding and crushed, if not annihilated, scotched, if not slain.⁹⁸

Yet he too recognised that this warfare was not based on logical or doctrinal *incompatibility*. Huxley was fond of pointing to the predestinarian doctrines of Augustine, Calvin and Edwards, in suggesting to Christian opponents that his teaching that animals, and humans, were “conscious automata” was quite compatible with Christian orthodoxy.⁹⁹ In an address delivered to the Cambridge Young Men’s Christian Society on March 24, 1870, Huxley again affirmed that the physiological psychology he taught was “not inconsistent, so far as I know, with any form of theology”.¹⁰⁰ The fact that Huxley’s epiphenomenalism could be seen to be compatible with Christian theology is yet another illustration of the fact that Reed’s inference from the compatibility of a psychology with theism to its theological nature is unconvincing. To go back to the example of the new nineteenth-century theory of emotions developed by physiological psychologists: it was not a scientific discovery that hate, jealousy, love and sorrow were really “emotions” rather than “passions” or “affections”. Scientific psychologists had not established a new *fact* that was *incompatible* with Christian faith. It was rather the case that there had been a shift in the dominant professions, epistemologies and narratives that were granted social authority. They were the psychological states of a new social and intellectual world.

Huxley went on to tell the young Christian males of Cambridge that the doctrines of the new science were

neither Christian, nor Unchristian, but are Extrachristian, and have a world of their own, which to use language which will be very familiar to your ears just now, is not only “unsectarian”, but is altogether “secular”.¹⁰¹

The teachings of physiological psychology may indeed be compatible with those of Christian theology but, more importantly, they belong to a different world. A decade later Harvey Goodwin, the Bishop of Carlisle, took up a similar theme. Physical science, he explained, in an article on “God and Nature” for *The Nineteenth Century*, is neither theistic nor atheistic.

If I might coin a word, I should say that science was *atheous*, and therefore could not be atheistic; that is to say, its investigations and reasonings are by agreement conversant simply with observed facts and conclusions drawn from them, and in this sense it is *atheous*, or without recognition of God.¹⁰²

When Huxley, in 1870, calls science “Extrachristian” and the Bishop of Carlisle, in 1880, says science is “atheous”, they are both seeking a name for what is here described as the creation of the “atheological” territory of

the sciences. The atheological narratives of science-as-worldview have come to replace Christian theology as the keys to understanding scientific results.

What is at stake in discussions between sciences and theologies is not whether scientific facts are compatible with religious beliefs. What is at stake is the way that we choose to describe human reality and its relation to other realities. Mary Midgley, John C. Greene, John Durant and Richard Lewontin have all gone some way towards highlighting these mythological and ideological dimensions of science.¹⁰³ This literature, however, tends towards the view that the point of exposing these elements of the scientific worldview is to *undermine* the credibility of science. It seems that this is Alvin Plantinga's aim too:

[A]mong the secularists, evolution functions as a *myth*, in a technical sense of that term: a shared way of understanding ourselves to ourselves, a way of telling us why we are here, where we come from, and where we are going.¹⁰⁴

While this is indeed an accurate description of the role of the evolutionary worldview for many atheological thinkers, the observation for Plantinga really just functions as another weapon in his polemical assault on the implicit atheism of science.

Others involved in this debate seek to resolve the issue by suggesting that scientists must stick to (empirical) science, while theologians (and others) get on with constructing our ethical codes and worldviews. Theologians and scientists both have an interest, but for different reasons, in perpetuating this supposed division of labour. Scientists use it to maintain their status as unbiased fact-gatherers, and theologians support it so as to remain necessary as ethical and spiritual commentators on the facts. There are at least two problems with this view. Firstly, scientists are, like any other human beings, engaged in value-laden enterprises—science is used in diverse political strategies, regularly creates new moral dilemmas and has countless ethical implications. Secondly, however, even if a workable fact-value distinction can be maintained, it is not clear why those skilled in empirical science should be permanently confined to the fact side of the fence. Nicholas Lash nicely summarises these points in suggesting it is important to recognise that

the scientist, far from occupying some god-like nowhere in particular from which to contemplate the world, ineluctably endorses and inhabits (as we all do) some ontology, some metaphysic, some story of the world and how things go with it.¹⁰⁵

Scientists, like theologians, are sometimes capable of constructing valuable worldviews and moralities based on, but more than, their natural scientific theories of humanity, nature and the cosmos.

It is important to identify the scientific worldview and its myths, but wrong to imagine that in doing so one has uncovered a shameful or

inappropriate part of the scientific tradition. The theologian, of all people, cannot suppose that to identify a discourse as mythological is to condemn it. What still needs to be explored is the positive quasi-theological role that the myths of science can play—and are playing—in creating meaning for those individuals who are not satisfied by traditional theological stories.

Richard Dawkins has also undertaken to show how science can, in certain senses, displace religion. He has explicitly said that he thinks that science should be the new “Religious Education”, inspiring as it does awe, wonder and respect for human beings and the universe.¹⁰⁶ However Dawkins, at the opposite end of the spectrum from Midgley, dismisses religion as simply bad science.¹⁰⁷ To turn Dawkins’ position on its head—it may be the case that some *science* is bad *religion*. It is not necessarily true, however, that *all* science is bad religion.

Between the positions of Midgley and Dawkins is a third position to be developed—a *positive* appreciation of an atheological mythology that draws upon the resources of the scientific tradition, but one which is undertaken with due scepticism for the claims of science for itself. Such a position would allow for the appropriation of the stories of science in a theological,¹⁰⁸ anti-theological or atheological context, and would reinforce the insight that scientific stories are (virtually) indefinitely ideologically and theologically flexible—they do not *entail* theism, atheism, nihilism, agnosticism, Buddhism, pantheism or anything else. Even deterministic and reductionist views of human nature are compatible with certain forms of Christian theology, as Huxley acknowledged.

Science and naturalism provide something above scientific results—they provide a worldview full of aetiology, cosmology, anthropology, psychology, teleology, and eschatology, along with distinctive attitudes to knowledge, to mystery and to morals. In short, they provide an alternative theology but one that is frequently without God, or in which Nature replaces God. Hence one might say that they provide an “atheology”. In this respect at least, my conclusions about scientific psychology are, as established above, in tune with those reached by Milbank about sociology, although I am significantly less hostile than Milbank to the atheological enterprise and do not consider it always to disguise anti-Christianity.

Don Cupitt, one of the few writers to assign a positive value to the myths of science, has noted that “the greatest stories, those that make the most sense of their lives to the most people for the longest periods, are usually the epic narratives of religion. One day”, he continues, “we may come to see Charles Darwin as having told such a story—and perhaps one of the greatest.”¹⁰⁹ Milbank makes the same point:

As the phrase “natural history” suggests, natural science does not rid itself of narrative, and indeed, it is just as possible to tell a story in which

the characters are atoms, plants, animals or quasars, as one where they are human beings.¹¹⁰

I agree with them both that the stories and natural histories provided by modern science comprise an alternative mythology or “narrative tradition”.¹¹¹ As such they are quasi-theological but they are also atheological because they comprise a narrative tradition that neglects to include stories of God.

Atheological scientific models, metaphors and narratives are put to work in a wide variety of contexts. Works of popular science and philosophy such as those of Richard Dawkins, Stephen Jay Gould, Michael Ruse, E. O. Wilson, Francis Crick, Daniel Dennett, John Searle, Carl Sagan, John Barrow, Frank Tipler and Stephen Hawking are the principal vehicles for naturalistic atheological myths and doctrines explicitly based on science.¹¹² In the rhetoric of groups campaigning on the protection of animals and the environment, for gay rights, or on what are called “bioethical” issues such as abortion, genetic engineering or embryo research, the appeal to naturalistic, scientific and medical authority also frequently takes the place of traditional moral-theological discourse.¹¹³

It is hoped, then, that it will be fruitful to see the many historical and contemporary interchanges between scientists and theologians as negotiations between different theologies and “atheologies” rather than as instances of a “debate” between “science” and “religion”. Furthermore, the identification of science-as-worldview as a form of mythology or narrative is not to be seen as an end in itself—least of all as a reason for theologians not to take science seriously—but rather as a first step towards a better understanding of the quasi-theological roles that science can now play. The fact that we are now evolved animals that have “emotions” rather than created souls that experience “passions and affections” is but one of the myriad ways in which our understanding of ourselves and our place in the cosmos is increasingly informed by an atheological set of narratives derived from the sciences rather than by traditional theologies.

NOTES

- 1 My sincere thanks are due, above all, to Fraser Watts for patiently reading, discussing and suggesting improvements to several earlier versions of this essay. I am additionally very grateful to the following, who made many helpful suggestions and criticisms: Emily-Claire Hutchinson, George Pattison, John Milbank, Nick Adams, Douglas Hedley, Nicholas Lash and the members of the Cambridge Divinity School “D” Society, Léon Turner, Greg Radick, Stephen Pitel, and two anonymous readers for *Modern Theology*.
- 2 For an account of the development of theories of emotions in French and German psychologies see H. N. Gardiner *et al.*, *Feeling and Emotion: A History of Theories* (Westport, CT: Greenwood Press, 1970) [1937].
- 3 John Milbank, *Theology and Social Theory: Beyond Secular Reason* (Oxford: Blackwell, 1990); Richard Webster, *Why Freud Was Wrong: Sin, Science and Psychoanalysis* (London: Harper Collins, 1995).

- 4 Milbank, p. 3.
- 5 In other words, their project seeks to unearth the hidden theological foundations of secular edifices. The method could also be termed “genetic”—a term Milbank uses—or, as will be argued below, “Freudian”, implying, as it does, the reality and potency of invisible and unconscious forces.
- 6 I should make it clear from the outset that in talking of “atheology” and the “atheological” I am *not* using these terms in the same way that Mark C. Taylor has used the terms “a/theology” and “a/theological”. Mark C. Taylor, *Erring: A Postmodern A/theology* (Chicago, IL: University of Chicago Press, 1984).
- 7 See for example Nancey Murphy, *Theology in the Age of Probable Reasoning* (Ithaca, NY: Cornell University Press, 1990).
- 8 St Augustine, *The Trinity* E. Hill, trans., *The Works of St. Augustine: A Translation for the Twenty-First Century*, Part I, Vol. 5 (New York, NY: New City Press, 1991); Isaac Watts, *Discourses of the Love of God, And its Influence on all the Passions; With A Discovery of the Right Use and Abuse of Them in Matters of Religion*, Third edition, (London: Oswald and Buckland, 1746); Jonathan Edwards, *A Treatise Concerning Religious Affections* [1746] in P. Miller (ed), *The Works of Jonathan Edwards*, Vol. 2 (New York, NY: Yale University Press, 1959); Joseph Butler, *Three Sermons upon Human Nature with a Dissertation on the Nature of Virtue* (Cambridge: Deighton and Stephenson, 1834) [1726].
- 9 Henry Maudsley, *Body and Mind: An Inquiry into their Connection and Mutual Influence, Especially in Reference to Mental Disorders, being the Gulstonian Lectures for 1870, delivered before the Royal College of Physicians* (London: MacMillan, 1870).
- 10 Alexander Bain, *The Emotions and the Will*, Fourth edition (London: Longmans, Green and Co., 1899) [1859]; Charles Darwin, *The Expression of the Emotions in Man and Animals*, Third edition (London: Harper Collins, 1998) [1872]; William James, “What is an emotion?”, *Mind* 9 (1884), pp. 188–205.
- 11 On Darwin’s religious beliefs see James Moore, *The Post-Darwinian Controversies: A study of the Protestant struggle to come to terms with Darwin in Great Britain and America 1870–1900* (Cambridge: Cambridge University Press, 1979), pp. 346–348 and “Creation and the Problem of Charles Darwin”, *British Journal for the History of Science* 14 (1981), pp. 189–199. On William James’ religion see Robert Richards, *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior* (Chicago, IL: University of Chicago Press, 1987), pp. 440–443.
- 12 David Ray Griffin, *God and Religion in the Postmodern World* (New York, NY: State University of New York Press, 1989), p. 2.
- 13 See, for example, John Tottie, *A View of Reason and Passion, as in their original and present state: A Sermon Preached before the Rt. Hon. Lord-Mayor, Aldermen and Sheriffs of the City of London, at the Cathedral-Church of St Paul on Sunday, December 21 1735*, Second edition (London: C. Rivington, 1738).
- 14 Watts, *The Doctrine of the Passions Explained and Improved: or, A Brief and Comprehensive Scheme of the Natural Affections of Mankind* (Coventry: Luckman, c.1780) [c.1730].
- 15 Watts (1746), pp. ix–x.
- 16 Cited in Gregory Clapper, *John Wesley on Religious Affections: His Views on Experience and Emotion and their Role in the Christian Life and Theology* (Lanham, MD: The Scarecrow Press, 1989), p. 140.
- 17 *Ibid.*, pp. 54f.
- 18 St. Augustine, *The City of God* XIV.6; Edwards, p. 96.
- 19 Solomon, p. xvii.
- 20 *Ibid.*, p. xix.
- 21 *Ibid.*, pp. 9f.
- 22 *Ibid.*, p. 68.
- 23 Amélie Oksenberg Rorty, “From Passions to Emotions and Sentiments”, *Philosophy* 57 (1982), p. 159.
- 24 See St. Augustine, *The City of God*, especially Books 9 and 14; St. Thomas Aquinas, *Summa Theologiae*, especially Ia.75–83 and Ia.2ae.22–48.
- 25 See René Descartes, *The Passions of the Soul*, J. Cottingham, R. Stoothoff, and D. Murdoch (eds), *The Philosophical Writings of Descartes*, Vol. 1 (Cambridge: Cambridge University Press, 1984). See also Susan James, *Passion and Action: The Emotions in Seventeenth-Century Philosophy* (Oxford: Clarendon, 1997), chapters 5 and 8.

- 26 Edwards, p. 98.
- 27 See S. James, ch. 6, for a good summary of Hobbes' views on the passions.
- 28 Butler, p. 11.
- 29 Butler, pp. vi, 21.
- 30 Sir Charles Bell, *The Anatomy and Philosophy of Expressions as Connected with the Fine Arts*, Third edition (London: Murray, 1844).
- 31 Graham Richards, *Mental Machinery: The Origins and Consequences of Psychological Ideas. Part I: 1600–1850* (London: Athlone Press, 1992), pp. 332–339. Edward Reed also attests to the extent of Brown's influence on nineteenth-century psychological thought, *From Soul to Mind: The Emergence of Psychology from Erasmus Darwin to William James* (New Haven, CT: Yale University Press, 1997), pp. 68–76.
- 32 See George Ramsay, *Analysis and Theory of the Emotions* (London: Longman, Brown, Green and Longmans, 1848), pp. 1–3; William Cooke, *A Commentary on Medical and Moral Life; or Mind and the Emotions considered in relation to Health, Disease and Religion* (London: Longman, Brown and Co., 1852), ch. 8; William Lyall, *Intellect, the Emotions, and the Moral Nature* (Edinburgh: Thomas Constable and Co., 1855), pp. 287–289; Bain, p. 594.
- 33 Thomas Brown, *Lectures on the Philosophy of the Human Mind*, Vol. 1 (Edinburgh: James Ballantyre and Co., 1820), p. 363.
- 34 Robert Blakey, *History of the Philosophy of Mind: Embracing the Opinions of all Writers on Mental Science from the Earliest Period to the Present Time*, Vol. 4 (London: Trelawney W. Saunders, 1848), p. 28.
- 35 James McCosh, "Scottish Metaphysicians", *North British Review* 27 (1857), pp. 404–409.
- 36 Roger Cooter, *The Cultural Meaning of Popular Science: Phrenology and the Organization of Consent in Nineteenth-Century Britain* (Cambridge: Cambridge University Press, 1984), pp. 39–50; Robert M. Young, "The Role of Psychology in the Nineteenth-Century Evolutionary Debate", in Mary Henle et al. (eds), *Historical Conceptions of Psychology* (New York, NY: Springer, 1973), pp. 187f.
- 37 Blakey, pp. 39–46.
- 38 See Charles Cashdollar, *The Transformation of Theology, 1830–1890: Positivism and Protestant Thought in Britain and America* (Princeton, NJ: Princeton University Press, 1989), pp. 54–55.
- 39 Brown, Vol. 3, p. 563; G. Richards, pp. 336–338.
- 40 James Mill, *Analysis of the Phenomena of the Human Mind* (London: Baldwin and Craddock, 1829).
- 41 Bain, pp. 10, 16.
- 42 Bain, pp. 10–12; James, p. 189.
- 43 Edwards, p. 98.
- 44 James, p. 194.
- 45 It is also worth noting that in his 1890 *Principles of Psychology* and especially in a subsequent article, "The Physical Basis of Emotion", *Psychological Review* 1 (1894), pp. 516–529, James drew back somewhat from the very reductionist tenor of his 1884 theory.
- 46 James, p. 194.
- 47 Darwin, p. 19.
- 48 Cited in Janet Browne, "Darwin and the Expression of Emotions", D. Kohn (ed), *The Darwinian Heritage* (Princeton, NJ: Princeton University Press, 1985), p. 325n.; see Darwin, pp. 17–19 for a fuller critique of Bell's methodology—Darwin especially objected to his appeal to the "special creation" of man. Darwin's view, of course, was that similarities of expressive behaviour in man and animals were just another confirmation of the continuism of man with the rest of the animal kingdom.
- 49 Friedrich Nietzsche, *On the Genealogy of Morals* W. Kaufmann and R. Hollingdale, trans. (New York, NY: Vintage Books, Random House, 1967) [1887], p. 155.
- 50 James Moore, *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870–1900* (Cambridge: Cambridge University Press, 1979), pp. 245–250; David Livingstone, "Darwinism and Calvinism: The Belfast–Princeton Connection", *Isis* 83 (1992), pp. 408–428; David J. Hoeveler, *James McCosh and the Scottish Intellectual Tradition: From Glasgow to Princeton* (Princeton, NJ: Princeton University Press, 1981), pp. 180–211.
- 51 McCosh, *The Emotions* (London: MacMillan, 1880), p. iv.

- 52 A. A. Roback describes Ladd as “the last of the Church Mohicans”, *History of Psychology and Psychiatry* (London: Vision Press, 1969), p. 174.
- 53 Hoeveler, pp. 99–107.
- 54 See e.g., Joseph LeDoux, *The Emotional Brain: The Mysterious Underpinnings of Emotional Life* (New York, NY: Simon and Schuster, 1996); Antonio Damasio, *Descartes’ Error: Emotion, Reason and the Human Brain* (New York, NY: Putnam, 1994); Stephen Pinker, *How the Mind Works* (London: Allen Lane, 1997), Chapter 6.
- 55 Peter Stearns, with Carol Stearns, “Emotionology: Clarifying the History of Emotions and Emotional Standards”, *American Historical Review* 90 (1985), p. 834.
- 56 K. Scherer, “On the Nature and Function of Emotion: A Component Process Approach” in K. Scherer and P. Ekman (eds), *Approaches to Emotion* (Hillsdale, NJ and London: Erlbaum, 1984), pp. 293–318.
- 57 Ronald de Sousa, *The Rationality of Emotion* (Cambridge, MA: MIT Press, 1987); Robert Solomon, *The Passions: Emotions and the Meaning of Life* (Indianapolis, IN: Hackett, 1993) [1976].
- 58 Solomon, “Sartre on Emotions” in P. Schilpp (ed), *The Philosophy of Jean-Paul Sartre. The Library of Living Philosophers*, Vol. 16 (La Salle, IL: Open Court, 1981), p. 217.
- 59 Solomon (1993), ch. 4.
- 60 *Ibid.*, p. xiv.
- 61 James Averill *et al.*, *Rules of Hope* (New York, NY: Springer and Verlag, 1990); Rom Harré (ed), *The Social Construction of Emotions* (Oxford: Blackwell, 1986); John Greenwood, *Realism, Identity and Emotion: Reclaiming Social Psychology* (London: Sage, 1994); Peter Stearns, *Jealousy: the Evolution of an Emotion in American History* (New York, NY: New York University Press, 1989).
- 62 Stearns (1989).
- 63 Harré, p. 3.
- 64 *Ibid.*, p. 4.
- 65 R. Richards, pp. 405ff.
- 66 Thomas Huxley, “Science and Morals”, in *Essays Upon Some Controverted Questions* (London: Macmillan, 1892), p. 224.
- 67 Huxley, “On the Physical Basis of Life” [1868] in *Method and Results, Collected Essays of T. H. Huxley*, Vol. 1 (London: Macmillan, 1894), p. 159.
- 68 *Ibid.*, p. 160.
- 69 It was Huxley who coined the term “agnostic”. Adrian Desmond, *Huxley: The Devil’s Disciple* (London: Michael Joseph, 1994), pp. 374f.; D. W. Dockrill, “T. H. Huxley and the Meaning of ‘Agnosticism’”, *Theology* 74 (1971), pp. 461–477; G. Hallam, “Source of the Word ‘Agnostic’”, *Modern Language Notes* 70 (1955), pp. 265–269.
- 70 Huxley [1868] in Huxley (1894), p. 155.
- 71 Desmond, p. xv.
- 72 Edward Reed, *From Soul to Mind: The Emergence of Psychology from Erasmus Darwin to William James* (New Haven, CT: Yale University Press, 1997), p. 7.
- 73 *Ibid.*, p. 183.
- 74 R. Richards, p. 405.
- 75 Leon Jacyna, “The Physiology of Mind, the Unity of Nature, and the Moral Order in Victorian Thought”, *British Journal for the History of Science* 14 (1981), p. 119.
- 76 Reed, p. 3.
- 77 Further examples of Reed’s failure to distinguish philosophical, spiritualistic monism and pantheism from Christian theology are his use of Baldwin’s advocacy of spiritualism and James’ pantheism as evidence that psychology succeeded because it was defending a Christian (Protestant) view of human nature. Reed, pp. 7–8, 214–220.
- 78 Milbank, e.g., p. 3.
- 79 *Ibid.*, p. 1.
- 80 Edwards, p. 181.
- 81 James (1884), p. 203.
- 82 *Ibid.*, pp. 201f.
- 83 See Thomas Kuhn, *The Structure of Scientific Revolutions*, Second edition (Chicago, IL: University of Chicago Press, 1970) [1962], pp. 144–148; W. Newton-Smith, *The Rationality of Science* (London and New York: Routledge, 1981), pp. 40–43; Peter Lipton, *Inference to the Best Explanation* (London and New York: Routledge, 1991), pp. 6–8.

- 84 Michael Ruse, *Evolutionary Naturalism: Selected Essays* (New York and London: Routledge, 1995), Part III, esp. Ch. 7, gives an account of the many different ideologies that evolutionary science has been associated with, from Kropotkin's communitarianism to the ideology of the Nazi regime. Matt Ridley, *The Origins of Virtue* (London: Penguin, 1997), pp. 1–7, similarly discusses the fact that evolutionary science can be used to support ideologies of mutual aid as well as those based on harsh competition. Susan Budd also emphasises the philosophical and ideological "lability" of Darwinian science, *Varieties of Unbelief: Atheists and Agnostics in English Society 1850–1960* (London: Heinemann, 1977), p. 142.
- 85 Richard Webster, *Why Freud Was Wrong: Sin, Science and Psychoanalysis* (London: Harper Collins, 1995), p. 470.
- 86 *Ibid.*, pp. 471f.
- 87 *Ibid.*, pp. 475, 495.
- 88 *Ibid.*, p. 168.
- 89 See Graham Ward, *The Postmodern God: A Theological Reader* (Oxford: Blackwell, 1997), pp. xl–xlii; Milbank, *passim*.
- 90 Conwy Lloyd Morgan, *Emergent Evolution: The Gifford Lectures, 1922* (London: Williams and Norgate, 1923).
- 91 See R. Richards, "The Natural-Selection Model and Other Models in the Historiography of Science", in Richards, *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior* (Chicago, IL: University of Chicago Press, 1987), pp. 559–594 for an interesting discussion of the application of evolutionary models to intellectual history.
- 92 McCosh, p. 49.
- 93 Maudsley, p. 2.
- 94 Milbank has suggested that the supposed duality of first explaining and subsequently understanding be seen instead as a single act of "narrating". Milbank, pp. 263–268.
- 95 John C. Greene has perhaps done most among historians of science and of ideas to develop an understanding of the relationship between the two sorts of discourse that I am calling "empirical science" and "science-as-worldview". His own contributions have concentrated on "Darwinism" as a world view—"a general view of reality", encompassing nature, humanity, society and history—developed by Spencer, Darwin, Wallace and Huxley c.1860; *Science, Ideology and World View: Essays in the History of Evolutionary Ideas* (Berkeley, CA: University of California Press, 1981). John Durant paraphrases Greene's theme as "the close interpenetration of what might be termed purely technical considerations with much broader metaphysical and moral issues in the development of scientific theories of organic origins"; "Evolution, ideology and world view: Darwinian religion in the twentieth century", in J. Moore (ed), *History, Humanity and Evolution: Essays for John C. Greene* (Cambridge: Cambridge University Press, 1989), p. 355.
- 96 "The beginning and the end of all things" is a description of God favoured by Lash in his reading of Aquinas. Nicholas Lash, "On what kinds of thing there are", in Lash, *The Beginning and End of 'Religion'* (Cambridge: Cambridge University Press, 1996), p. 99.
- 97 Mary Midgley, *Science as Salvation: A Modern Myth and its Meaning* (London: Routledge, 1991), p. 1. For a lively debate on the propriety of the metaphor of "selfish" genes see Richard Dawkins, *The Selfish Gene* (Oxford: Oxford University Press, 1976), and "In defence of selfish genes", *Philosophy* 56 (1981), pp. 556–573; Midgley, "Gene-juggling", *Philosophy* 54 (1979), pp. 439–458; "Selfish genes and social Darwinism", *Philosophy* 58 (1983), pp. 365–377.
- 98 Huxley, "On *The Origin of Species*", *Westminster Review* (April, 1860), p. 305.
- 99 Huxley, "On the Hypothesis that Animals are Automata and its History" [1874], in Huxley (1894), pp. 246–250.
- 100 Huxley, "On Descartes' *Discourse on Method*" [1870], in Huxley (1894), p. 195.
- 101 *Ibid.*, p. 195.
- 102 Harvey Goodwin, "God and Nature", *Nineteenth Century* 7 (1880), p. 503.
- 103 Mary Midgley, *Evolution as a Religion* (London: Methuen, 1985); *Science as Salvation: A Modern Myth and its Meaning* (London: Routledge, 1991). Richard Lewontin, *The Doctrine of DNA: Biology as Ideology* (London: Penguin, 1993). Also see n. 95 above.
- 104 Alvin Plantinga, "When Faith and Reason Clash: Evolution and the Bible", in D. Hull and M. Ruse (eds), *The Philosophy of Biology* (Oxford: Oxford University Press, 1998), p. 682.

- 105 Nicholas Lash, "On what kinds of things there are", in Lash (1996), p. 96.
- 106 Richard Dawkins, "Science as Religious Education"; address to the British Humanist Association, London School of Economics, 20 June 1996.
- 107 See Michael Poole, "A critique of aspects of the philosophy and theology of Richard Dawkins", *Science and Christian Belief* 6 (1994), p. 42.
- 108 Several theological thinkers have sought to combine scientific naturalism with religious faith. See for example Griffin, pp. 77–82; Willem Drees, *Religion, Science and Naturalism* (Cambridge: Cambridge University Press, 1996); Charley Hardwick, *Events of Grace: Naturalism, Existentialism and Theology* (Cambridge: Cambridge University Press, 1996); Don Cupitt, *After All: Religion Without Alienation* (London: SCM, 1994), pp. 111f.; *After God: The Future of Religion* (New York, NY: Basic Books, 1997), Chapter 13; *The Last Philosophy* (London: SCM, 1995), p. 63.
- 109 Cupitt (1994), p. 16.
- 110 Milbank, p. 269.
- 111 "Narrative tradition" and "mythos" are useful terms employed by Milbank to describe both Christianity and alternative secular worldviews. See Milbank, p. 262.
- 112 See for example Richard Dawkins, *The Selfish Gene* (Oxford: Oxford University Press, 1976); *Unweaving the Rainbow* (London: Allen Lane, 1998). Stephen Jay Gould, *Ever Since Darwin* (New York, NY: Norton, 1977); *Wonderful Life: The Burgess Shale and the Nature of History* (London: Penguin, 1989). Daniel Dennett, *Consciousness Explained* (Harmondsworth: Penguin, 1991); *Darwin's Dangerous Idea* (New York, NY: Simon and Schuster, 1995). Michael Ruse, *Evolutionary Naturalism: Selected Essays* (London and New York: Routledge, 1995). Edward O. Wilson, *Sociobiology: The New Synthesis* (Cambridge, MA: Harvard University Press, 1975); *On Human Nature* (Cambridge, MA: Harvard University Press, 1978); *Consilience* (Cambridge, MA: Harvard University Press, 1998). Francis Crick, *The Astonishing Hypothesis: The Scientific Search for the Soul* (London: Simon and Schuster, 1994). John Barrow and Frank Tipler, *The Cosmological Anthropic Principle* (Oxford: Oxford University Press, 1986). Carl Sagan, *Cosmos* (New York, NY: Random House, 1980). Stephen Hawking, *A Brief History of Time* (London: Bantam Press, 1988).
- 113 See e.g., Michael Mulkay, "Galileo and the Embryos: Religion and Science in Parliamentary Debate over Research on Human Embryos", *Social Studies of Science* 25 (1995), pp. 499–522; H. Tristram Engelhardt, *Bioethics and Secular Humanism: The Search for a Common Morality* (London: SCM Press, 1991).