

ARTICLE

ART AND EVOLUTION: NIETZSCHE'S PHYSIOLOGICAL AESTHETICS

Gregory Moore

Aesthetics, Nietzsche famously declares in one of his attacks on Wagner, is nothing but 'applied physiology'.¹ Yet for all the familiarity of this suggestive claim, Nietzsche's frequent allusions to a projected 'physiology of art' in the last two years of his productive life have rarely been discussed in any detail. Heidegger's refusal to take seriously such utterances, arguing that it constitutes a 'fatal misunderstanding on our part when we isolate such physiological thoughts and bandy them about as a "biologistic aesthetics"', is no more than typical of a long tradition of Nietzsche scholarship, which has viewed his characteristic appeal to the language and concepts of biology as mere rhetorical posturing, as an ironic counterweight to the otherworldliness of traditional Idealist aesthetics.² But Nietzsche's 'biologism' cannot and should not be dismissed in so casual a manner, for to do so is to elide the complex historical background against which he formulated the ideas which were to underpin his planned work on the 'physiology of art'.

In this paper, then, I shall suspend judgement about the metaphoricality of Nietzsche's naturalistic claims about aesthetics, locating instead this strand of his thought within the context of a more general trend in the nineteenth century towards accounting for the origin and function of art in terms of evolutionary biology. Nietzsche's project, I argue, can be viewed as a plausible and consistent enterprise when seen as one aspect of this widespread contemporary biologism. This claim rests on a second: that this unstated commitment to an 'evolutionary aesthetics' is a continuous thread connecting the many developments and shifts of emphasis in his philosophy of art.

¹ Nietzsche, *Werke: Kritische Gesamtausgabe*, ed. by Giorgio Colli and Mazzino Montinari (Berlin, 1967–), VI 3, p. 416. All subsequent citations appear in the text. References to Nietzsche's notebooks are from this edition; all translations are my own. In addition, I quote from the following works available in English translation: *The Birth of Tragedy and Other Writings* (henceforth abbreviated as BT), translated by Ronald Speirs (Cambridge, 1999); *On the Genealogy of Morals* (GM), translated by Douglas Smith (Oxford, 1996); *Twilight of the Idols* (TI), translated by Duncan Large (Oxford, 1998).

² Heidegger, *Nietzsche* (San Francisco, 1979), I, *The Will to Power as Art*, p. 127. Other examples of this tendency include Julius Zeitler, *Nietzsche's Ästhetik* (Leipzig, 1900); Helmut Pfotenhauer, *Die Kunst als Physiologie: Nietzsches ästhetische Theorie und literarisches Schaffen* (Stuttgart, 1985).

If his so-called 'physiology of art' only achieves its fullest expression in the notes of 1887 and 1888, when the direction of his thought tends ever more consistently and obsessively towards a reductive biologism centred on the will to power, the link between art and evolution is nevertheless implicit even from the time before *The Birth of Tragedy* (1872).

The fact that Nietzsche was by no means the first thinker to seek to account for aesthetic effects or states of consciousness by reducing them to biological processes has been consistently ignored by his commentators. This inevitably gives the impression that his enterprise really does represent a radical departure not only from the nineteenth century, but from the tradition of aesthetic thought as a whole. Yet a number of eighteenth-century British empiricist thinkers had based their theories of art on just such a 'physiological' approach. For example, in his *Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful* (1759), Edmund Burke first distinguishes the sublime from the beautiful by means of a psychology of pleasure and pain and of the passions; he then isolates the material properties which aroused those feelings; and finally he conjectures at a nervous physiology to account for the production of aesthetic sensations. The experience of the sublime is grounded on the impulse towards self-preservation; that is, on feelings of pain which, though stretching the nervous fibres beyond their normal tone so that the motions of the soul are suspended as if in fear, are yet 'so modified as not to be actually noxious', and thus give rise to 'a sort of delightful horror, a sort of tranquillity tinged with terror'. The apprehension of beauty, on the other hand, is linked to the multiplication of the species, producing 'the passion of love in the mind' and the accompanying pleasurable sensations of melting or languor by causing the fibres of the body to relax below their natural tone.³ Uvedale Price, a disciple of Burke, inherited this materialist physiology and used it to explain the 'picturesque', a sensation that gives rise to curiosity, which 'by its active agency keeps the fibres to their full tone, and thus picturesqueness when mixed with either of the other characters, corrects the languor of beauty, or the terror of the sublime.'⁴ Finally, Daniel Webb's *Observations on the Correspondences between Poetry and Music* (1769) also accords a dominant role to physiological causes in explaining aesthetic effects – in his case, the mechanical 'movements' impressed on the nerves and 'animal spirits' by poetic and musical impressions. It was Kant's *Critique of Judgement* (1790) which put an end to this line of inquiry in aesthetics for almost a century, with Kant explicitly formulating his 'transcendental' demonstration of aesthetic

³ Burke, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful* (London, 1759; repr. 1970), part IV, sections vii and xix.

⁴ Price, *Essays on the Picturesque*, 3 vols (London, 1810) I, 88–9.

judgements as the antithesis of the 'physiological exposition' typified by Burke and his followers.⁵

Only after the publication of *The Origin of Species*, when Darwinism suddenly deprived aesthetics of its transcendental foundation, were renewed efforts made to discover the bodily processes involved in the creation and enjoyment of art – although now the new evolutionary biology was invoked, rather than the nervous physiology of the previous century. Hippolyte Taine's *Philosophie de l'art* (1865), a work which Nietzsche owned, is one of the first post-Darwinian attempts to account for the artistic impulse and to describe and categorize artworks in terms of the influence of heredity and the environment on the human organism. What Taine refers to as the 'moral temperature' of civilizations is the equivalent of environmental and climatic pressures in organic evolution, and acts as the selective principle for different species of talent. Through this mechanism, particular art-forms develop and flourish at particular periods in particular countries.

A more typical example of the numerous systems of evolutionary aesthetics which proliferated in the late nineteenth century, particularly in Germany, is the work of Konrad Lange, professor of art history at the University of Tübingen. In his *Das Wesen der Kunst (The Nature of Art)*, he views the aesthetic faculty as a biological function which has attained ever greater degrees of perfection in the natural world because the production and appreciation of artistic forms secured an advantage in the struggle for existence and promoted the survival of the species. Aesthetic value judgements can therefore be derived in the following way:

All art that corresponds to that nature of art which has evolved over time, that is, to the aesthetic instinct of the human species, is good; all art that does not coincide with it is bad. Or, in other words: all art which is beneficial to the species is good; all art which is injurious to it, bad. Therefore the task of the study of art is simply to investigate and elucidate this instinct of the species.⁶

Announcing his planned work on a 'physiology of aesthetics' in *On the Genealogy of Morals*, Nietzsche describes this problem area as 'a field which has so far remained completely untouched and unexplored' (GM III 8, p. 91). But this is not quite true. Though it was Nietzsche's slogan and ideas which inspired later works such as Gustav Naumann's *Geschlecht und Kunst. Prolegomena zu einer physiologischen Aesthetik* (1899) and Georg Hirth's *Aufgaben der Kunstphysiologie* (1897), the British thinker and

⁵ Kant, *The Critique of Judgement*, translated by James Creed Meredith (Oxford, 1952), p. 130. Eighteenth-century attempts to construct a physiological aesthetics were not confined to Britain. See e.g. the *Viertes Wäldchen* of Herder's *Kritische Wälder*, in *Werke*, ed. by Wolfgang Pross (Munich, 1984–), II, 57–240 and his *Plastik* (*ibid.*, 401–542).

⁶ Lange, *Das Wesen der Kunst*, 2 vols (Berlin, 1901), I, 13–15. See also Max Burckhard, 'Die Kunst und die natürliche Entwicklungsgeschichte', in *Aesthetik und Socialwissenschaft* (Stuttgart, 1895); Max Nordau, 'Evolutionistische Ästhetik', in *Paradoxe* (Leipzig, 1885).

novelist Grant Allen, apparently unbeknownst to Nietzsche, had already set foot upon this virgin territory some ten years earlier in his 1877 treatise *Physiological Aesthetics*. Allen, a disciple of Herbert Spencer, set out to 'prove that our existing likes and dislikes in aesthetic matters are the necessary result of natural selection', and furthermore to 'exhibit the purely physical origin of the sense of beauty, and its relativity to our nervous organization'.⁷ Curiously enough, though, the attempts of Allen and Spencer to account for the origin of aesthetic sensibility along evolutionary lines involved the resurrection of a concept borrowed from Idealism: Schiller's 'play-impulse' (*Spieltrieb*), the drive which, as the synthesis of man's spiritual and sensuous nature, is the well-spring of human creativity. In contrast to the approach exemplified by Lange, which emphasizes the strict biological utility of aesthetic activity, Spencer and Allen argue that such behaviour is in essence a variety of play because 'neither subserve, in any direct way, the processes conducive to life'.⁸ Art provides recreation for the higher faculties, a means of discharging their superfluous energy in simulated actions, just as sport provides an outlet for the lower powers. What makes any experience 'aesthetic' is its intensity and separateness from biological needs. Or, as Allen puts it: 'The aesthetically beautiful is that which affords the Maximum of Stimulation with the Minimum of Fatigue or Waste, in processes not directly connected with the vital functions'.⁹ As we shall see, this attempt to reformulate Kantian aesthetics using the language and concepts of modern biology has little in common with the way in which Nietzsche understands the origin and function of art.

If, then, we have established in brief outline a 'tradition' of physiological or evolutionary aesthetics, the question remains as to how we situate Nietzsche within this context. I shall begin by exploring his early notebooks from the period immediately before and after the publication of *The Birth of Tragedy*, in which he elaborates his conception of a 'Kunsttrieb' operating in nature beyond the realm of human agency. In the second half of this paper, I shall then discuss the later writings in which Nietzsche outlines his plans for a 'physiology of art', focusing on the way in which he believes art and evolution to be linked by the erotic impulse.

THE KUNSTTRIEB AND EVOLUTION

Perhaps the most important and influential nineteenth-century figure to advance a system of evolutionary aesthetics was the German biologist Ernst Haeckel. His monistic philosophy, an idiosyncratic blend of *Naturphilosophie* and Darwinism, seeks to account not only for the existence of 'natural

⁷ Allen, *Physiological Aesthetics* (London, 1877), pp. viii and 2.

⁸ Spencer, *The Principles of Psychology*, 2 vols (London, 1872), II, 627.

⁹ Allen, p. 39.

beauty' – that is, the awe-inspiring symmetry and order of living structures produced by the processes of evolution – but also for the origin of human creativity. Both, he concludes, are the visible manifestation of an intrinsic *Kunsttrieb*. The concept of the *Kunsttrieb* is an old one. Coined by Hermann Samuel Reimarus in his *Allgemeine Betrachtungen über die Triebe der Thiere, hauptsächlich über ihre Kunst-Triebe* (1760), it originally explained certain spontaneously creative behaviour observable in animals, referring to those instincts, for example, which prompt the bird to build its nest or the beaver its dam.¹⁰ Gradually, though, it also began to be applied by eighteenth-century aestheticians to man's impulse to produce fine art (*schöne Kunst*).¹¹ Haeckel's use of the term unites both meanings by giving the idea of the *Kunsttrieb* an evolutionary twist: human artistry is simply a more refined expression of the same primordial creative instincts which all organisms possess to a greater or lesser degree. At the same time, however, he also implies that this *Kunsttrieb* is a supra-individual vital force identical with the developmental processes of life itself – a more aestheticized version of Blumenbach's *Bildungstrieb*, as it were. He even goes so far as to suggest that 'artistic functions' are already present in the mother cell and in the fertilized ovum. This claim rests on his theory of the *Zellseele*, published in 1866, according to which *all* organic structures – even the most elementary – are held to be endowed with spirit. Haeckel accordingly posits 'nerve-souls', 'tissue-souls' and 'cell-souls', all of which are agglutinations of a mysterious substance called 'psychoplasm', the basis of mental life, and which ultimately combine to create the souls of higher animals and human beings. This theory of the cell-soul, he writes, 'is alone able to make comprehensible to us [the cell's] plastic activity, its "Kunsttrieb"'.¹² Precisely how this is so is explained in his *Kunstformen der Natur* (*Art Forms of Nature*), an immensely popular and luxuriously illustrated volume depicting the shape and structures of living organisms:

Attentive and uninhibited observation of the formative plasm persuades us that, in the production of its stable natural forms, this shapeless 'living substance' proceeds in many respects in a similar fashion to man in the production of his art forms. Similar in both cases is the purposiveness, as well as the beauty of the created forms; similar, too, is in both cases the basic physiological functions of sensation (feeling) and of movement (will) which combine in this process. We must therefore attribute to all living plasm a kind of rudimentary mental activity, which, in a word, we call 'soul'. The assumption of such a *plasm-soul* (*plasmapsyche*) is warranted for the reason alone that all living substance

¹⁰ This is the sense in which Schopenhauer employs the term in the chapter entitled 'Vom Instinkt und Kunsttrieb' in the second volume of *Die Welt als Wille und Vorstellung*.

¹¹ See e.g. Schiller: 'How early or late the aesthetic artistic impulse [*Kunsttrieb*] should develop will depend simply on the degree of fondness with which Man is capable of lingering at mere appearance' (*On the Aesthetic Education of Man* (Bristol, 1994), p. 127).

¹² Haeckel, *Die Natur als Künstlerin* (Berlin, 1924), p. 10.

possesses *memory*. Without this faculty of memory, countless *species* of organisms would not be able, in reproduction, to bring forth again and again the same specific form by means of *heredity*. But the fundamental difference between these two similar processes lies in the fact that the universal protoplasm-soul of rudimentary organisms operates *unconsciously* and without purpose in itself; the soul of the higher animals and of man, in contrast, does so in a *conscious* and purposive manner.¹³

This artistic, creative power, which is manifested even in the most primitive organisms, is for Haeckel the very engine of evolution. His invocation of the *Kunsttrieb* is typical of the 'biological romanticism' of many nineteenth-century German biologists, who, loyal to the vitalistic traditions of their science, rejected the more materialistic and dysteleological aspects of Darwin's theory of natural selection in favour of an intra-organic directive or transformative force in nature.¹⁴ Certainly, Haeckel was by no means the only thinker to delude himself into thinking that the new evolutionary biology lent credence to the old romantic conception of nature as a self-creating, artistic whole. His scientifically obsolete *Naturphilosophie* was echoed by his friend Wilhelm Bölsche, a novelist and bestselling author of popular works on the theory of evolution. Art, for Bölsche, is a ceaseless, pulsating impulse in nature towards harmony that is manifested in all structures, both organic and inorganic, from snowflakes to the skeletons of animals.¹⁵ What is more, this rhythmic principle, which Bölsche misleadingly equates with Darwinian evolution, also expresses itself 'in the *artistic sensibility* of human beings and in our active attempt to produce aesthetic forms'.¹⁶ Human art thus conforms to the same aesthetic principles that guide the creative processes of nature as a whole.

Both Haeckel and Bölsche, then, view evolution as an essentially artistic process. And so, too, does Nietzsche. The later thinker, the theorist of the will to power, understands evolutionary history as one aspect of a universal, cosmic becoming (*Werden*), as the unfolding of certain creative forces immanent in nature. The same is true of the younger, Schopenhauerian metaphysician of *The Birth of Tragedy*, for whom 'art' designates not only a mode of human activity or its artefacts, but also a universal,

¹³ Haeckel, *Kunstformen der Natur* (Leipzig, 1904), p. 8. For a more detailed discussion of Haeckel's evolutionary aesthetics, see Kurt Bayertz, 'Die Descendenz des Schönen: Darwinisierende Ästhetik im Ausgang des 19. Jahrhunderts', in *Fin de Siècle: Zur Naturwissenschaft und Literatur der Jahrhundertwende im deutsch-skandinavischen Kontext*, ed. by K. Bohnen and others (Copenhagen, 1984), 88–110.

¹⁴ For a discussion of the persistence of pre-Darwinian theories of non-adaptive models of organic change in the nineteenth century, see Peter Bowler, *The Non-Darwinian Revolution: Reinterpreting a Historical Myth* (Baltimore, MD, 1992).

¹⁵ Bölsche, 'Vom Religiösen in unserer Zeit', in *Weltblick: Gedanken zu Natur und Kunst* (Dresden, 1904), p. 149.

¹⁶ Bölsche, *Das Liebesleben in der Natur: Eine Entwicklungsgeschichte der Liebe*, 3 vols (Jena, 1906–7), II, 392.

supra-individual phenomenon, the essence of which is *poiesis*. Human artistry is merely 'a *repetition* of the *primordial process* through which the world was created' (III 3, 7[117]), reflecting and imitating the formless, productive energies of life itself, the groundless self-generation of the 'world-Will'. Even if the activity of the 'original artist' (*Urkünstler*) which Nietzsche postulates here is only indirectly compatible with a more explicitly biological theory of evolution, his early thought has nevertheless much in common with the 'biological romanticism' prevalent at the *fin de siècle*.

For Nietzsche, then, the world – that is, the world of appearance, the world as 'representation' in Schopenhauer's sense – is itself a work of art, one fashioned by a cosmic process represented by his famous distinction between the Apolline and Dionysiac. These twin principles are not only modes of human artistic expression, but 'artistic powers which erupt from nature itself, *without the mediation of any human artist*' (BT 2, p. 19). They are also explicitly and repeatedly described as *Kunsttriebe*.¹⁷ This concept holds the key to the development of Nietzsche's aesthetics, linking as it does his early thought with that of the later years. In the 'Attempt at Self-Criticism' which prefaced the second edition of *The Birth of Tragedy* in 1886, he lamented the fact that he had laboured 'to express strange and new evaluations in Schopenhauerian and Kantian formulations, things which fundamentally ran counter to both the spirit and taste of Kant and Schopenhauer' (BT 6, p. 10). This remark is often taken to refer to the major themes of his thought which are prefigured in his first work: for example, the necessity of life-affirming illusions and the heralding of a 'tragic' attitude. But this claim is also true in a way which few commentators have ever recognized. For among these suppressed 'strange and new evaluations' towards which he was groping were ideas he would later revive and elaborate in greater detail during the late 1880s in his efforts to construct a physiology of art. This is particularly evident, as we shall see, in the manner in which he portrays the Apolline and Dionysiac *Kunsttriebe*.

A careful reading of notes made before, during and immediately after the publication of *The Birth of Tragedy* in 1872 shows that Nietzsche was already reflecting on the possibilities of a 'physiology of aesthetics', as he puts it in one brief fragment listing potential topics for future writings (III 5/1, p.111). Around the same time that he wrote this gnomic phrase, that is, between 1870 and 1871, he was also preparing a study of the 'physiological grounding and explanation of rhythm (and its power)' (II 3, p. 322), which was intended as part of a 'Prolegomena to a Theory of Classical Rhythmics'

¹⁷ See III 1, pp. 26, 27, 34, 38, 117, 118, 151. I have retained the original German throughout because this allows for greater transparency in tracing Nietzsche's use of the term within a wider context and tradition. None of the existing English translations of *The Birth of Tragedy* retains the conceptual ambiguity of *Kunsttrieb*, which, in the nineteenth century, had currency in both metaphysics *and* biology, and slips easily between the two semantic fields (Speirs (Cambridge, 1999) renders it as 'artistic drive'; Whiteside (Harmondsworth, 1993) as 'artistic impulse' and Kaufmann (New York, 1967) as 'art-impulse').

(itself part of an uncompleted philological project entitled 'Rhythmical Investigations'). Rhythm, according to these fragments, is fundamental to the processes of life: 'Physiologically, life is a continual rhythmic motion of the cells. The influence of rh[ythm] seems to me to be a minute modification of that rhythm[ic] motion' (II 3, p. 325). Music thus has the power to affect the human body directly by disrupting and redetermining the various internal cellular rhythms of the organism.

Even while he was drafting that supposedly 'metaphysical' work, *The Birth of Tragedy*, Nietzsche was still contemplating the relationship between physiology and art. In an extremely revealing note written between summer 1871 and the beginning of 1872, he writes: 'aesthetics only has meaning as natural science: like the Apolline and the Dionysiac' (III 3, 16[6]). The Apolline and Dionysiac *Kunsttriebe* are thus to be understood 'scientifically'; they are intended as poetic symbols of natural processes. Even in the published text, the 'Apolline' and 'Dionysiac' designate the two possible means by which cosmic forces are manifested in the bodily functions of the human organism. For both aesthetic states, Nietzsche explicitly declares, are accompanied by 'physiological phenomena', by 'dream' and 'intoxication' (BT 1, pp. 14–15). The aesthetic state is not, of course, wholly reducible to either of these experiences. Dionysiac art, for example, is based on a creative 'play with intoxication' (BT, *The Dionysiac World View*, p. 120), a conscious manipulation of the physiological state of ecstasy, which is induced either artificially through the ingestion of narcotics or naturally by what Nietzsche often refers to as the 'drive of spring' (*Frühlingstrieb*). The Dionysiac *Kunsttrieb*, then, is a kind of sublimation of the libidinous, primal urges of man, the 'panhetaeric animality' celebrated by primitive cults (BT, *The Dionysiac World View*, p. 121). Because such art originates in an 'unleashing of the lower drives' (BT, *The Dionysiac World View*, p. 121), it is able to reveal and simultaneously to transfigure our shared experience and bestial origins. It achieves this – like all art – through the transference of the original 'dreams and states of intoxication' experienced by the artist (III 3, 16[21]). This process provides the basis for an account of how aesthetic judgements are formed by the receiver of art. These judgements are not the products of conscious reflection, but arise as a result of the 'arousal of the artistic capacity' in the spectator (III 3, 16[6]). In other words, the spectator becomes artist: the work of art exerts a direct influence on the physiology of the receiver, in much the same way as Nietzsche envisages the effects of rhythm on the human body. This physiological effect forms the basis of a standard of aesthetic judgements: those works of art which are more capable of arousing the state of intoxication or dream characteristic of aesthetic experience have greater aesthetic value.

But what of the *Kunsttrieb* as a non- or supra-human force of nature? In notes written shortly after the publication of *The Birth of Tragedy*, during a period which would see him finally liberate himself from Schopenhauer's influence and gradually move towards the more in-depth study and qualified

acceptance of contemporary science which distinguishes his 'middle period', it seems that Nietzsche began to realize that his metaphysics of art was consistent with some form of evolutionism. What he calls 'higher physiology' will reveal, he claims in one note written between 1872 and 1873, the activity of the 'artistic forces' present not only in human, but also all organic evolution (*Werden*). It will show 'that with the *organic* the *artistic* also *begins*' (III 4, 19[50]). In other words, Nietzsche views evolution as an artistic process – just as Haeckel and Bölsche later would. A few notes later, Nietzsche even goes so far as to suggest that the chemical changes which take place in inorganic nature may also be 'artistic processes' (III 4, 19[54]). This remark not only foreshadows the activity later ascribed to the will to power in nature, it also expresses more clearly ideas which he had entertained prior to the completion of the final draft of *The Birth of Tragedy*. While in the published work he avoids detailing the wider operations of the 'artistic double drive in nature' (BT 6, p. 33) in the organic and inorganic world, Nietzsche sketches a rough outline of its activity in his notes. Again anticipating his later claim that artistic idealization is intimately linked with the sex drive, Nietzsche contends here that the '*unconscious form-creating force*' which manifests itself 'in *procreation*' is the same '*Kunsttrieb* ... which compels the artist to idealize nature and which compels each and every human being to create a pictorial representation of himself and of nature'. In other words – and this is a theme that Nietzsche would soon elaborate in greater detail in *On Truth and Lies in an Extra-Moral Sense* – even the processes of cognition and perception are a product of this *Kunsttrieb*, for it is responsible for the 'construction of the eye', as well as the intellect, which he describes as 'a *consequence* of what is first and foremost an artistic apparatus' (III 3, 16[13]).

On the basis of this concept of the *Kunsttrieb*, Nietzsche establishes a hierarchy, graded according to the various levels of its objectification in nature, in much the same way as Schopenhauer orders the natural world according to the progressively more 'adequate' objectification of the Will. Organisms are deemed 'higher' or 'lower' according to their 'artistic' capacities or their sufficiency as media for the expression of the *Kunsttrieb*. Human beings, of course, represent the highest level of objectification: 'The awakening of the *Kunsttrieb* differentiates the animals. That we see nature in a particular way, in a particularly artistic way – this we share with no other living thing. But there is also an artistic gradation of the animals' (III 3, 16[13]).

Yet despite the outwardly biologicistic nature of Nietzsche's early thought, the activity of the *Kunsttrieb* remains the solution to an essentially metaphysical problem. The function of human art – of Greek tragedy, for instance – is to beautify, to aestheticize the terror and absurdity of the world, which Nietzsche, in one note at least, describes in pseudo-Darwinian terms: 'The poet overcomes the struggle for existence' (III 3, 16[15]). In much the same way, the creativity of the *Kunsttrieb*, which is manifested in the development of new organic structures, in new forms of life, and, at the

highest point of evolution, in the autopoietic organs of (human) perception and cognition, is a means of attaining metaphysical *Erlösung*. 'To see the forms – that is the means of getting beyond the incessant suffering of the drive [*Trieb*]. It creates organs for itself' (III 3, 16[13]). The Will as *Kunsttrieb* manifests itself as individuated representation, as creative Nature, in order to deliver itself from the primal pain [*Urschmerz*], the contradictoriness and horror at the heart of the universe of becoming. As Nietzsche puts it in *The Birth of Tragedy*:

The more I become aware of those all-powerful artistic drives in nature [*Kunsttriebe*], and of a fervent longing in them for semblance, for their redemption and release in semblance, the more I feel myself driven to the metaphysical assumption that that which truly exists, the eternally suffering and contradictory, primordial unity, simultaneously needs, for its constant release and redemption, the ecstatic vision, intensely pleasurable semblance.

(BT 4, pp. 25–6)

The fundamental characteristic of the Will, then, is sensation, and the organic world is an 'artistic projection' of this sensate Will: 'Sensation is not the result of the cell; rather, the cell is the result of sensation. . . . That which is real [*Das Substantielle*] is sensation' (III 3, 7[168]). Nietzsche's idea that sensation and will are the fundamental properties of the universe is a claim which is reminiscent of Haeckel's theory of the *Zellseele*. But though Haeckel imagines these 'basic physiological functions' to be universal attributes of matter, these are for Nietzsche (at least at this stage of his development) primarily the characteristics of an undifferentiated, unique *ens metaphysicum* – albeit a metaphysical being conceived and described in physiological terms. Falling back on a characteristically romantic image, Nietzsche envisages the world itself as an 'immense organism that gives birth to itself and sustains itself' (III 3, 5[79]), a cosmic organism that is, more specifically, a 'suffering being' (III 3, 7[204]) which is forced each and every moment to produce a 'strong sensation of pleasure' in order to alleviate its own suffering. It is through this pleasure, which is identical with 'the pure contemplation and the production of the art-work' (III 3, 7[117]) – aesthetic pleasure, in other words – that life, in particular human life, is seduced into continued existence. This fundamental sensation of rapture [*Verzückung*] experienced by the Will is exactly analogous to that encountered in human artists; it is, Nietzsche suggests in his notes, 'physiologically grounded' (III 3, 7[202]). The aesthetic activity of the original artist, of the *Kunsttrieb*, is thus itself a 'physiological process' (III 3, 7[117]).

EROS AND EVOLUTION

Despite the many theories which appeared at the end of the nineteenth century purporting to explain the origin and function of art in evolutionary

terms, Darwin himself was largely silent on the subject. The one and only place in his work where he discusses aesthetic phenomena, however, proved to be influential. In *The Descent of Man* (1871), he suggests that the ability to appreciate beauty is not unique to human beings. Rather, birds and other higher animals also appear to display an aesthetic sensibility, which expresses itself in the mating rituals that form part of the process of sexual selection:

When we behold a male bird elaborately displaying his graceful plumes or splendid colours before the female, whilst other birds, not thus decorated, make no such display, it is impossible to doubt that she admires the beauty of her male partner. As women everywhere deck themselves with these plumes, the beauty of such ornaments cannot be disputed. . . . [T]he nests of humming-birds, and the playing passages of bower-birds are tastefully ornamented with gaily-coloured objects; and this shows that they must receive some kind of pleasure from the sight of such things. With the great majority of animals, however, the taste for the beautiful is confined, as far as we can judge, to the attractions of the opposite sex. The sweet strains poured forth by many male birds during the season of love, are certainly admired by the females . . . If female birds had been incapable of appreciating the beautiful colours, the ornaments, and voices of their male partners, all the labour and anxiety exhibited by the latter in displaying their charms before the females would have been thrown away.¹⁸

Wilhelm Bölsche would later make this insight into the sexual origin of the aesthetic faculty the basis of his entire philosophy of nature, which he elaborates in his three-volume major work of 1906–7, *Das Liebesleben in der Natur* (*Love-Life in Nature*). The basic premise of what he calls 'erotic monism' is the claim that sexual love is the unifying principle of the universe, the motor of evolution and the fundamental creative force underlying natural beauty and human art. For Bölsche and his mentor Haeckel, the ruthless, mechanistic and, above all, ugly Darwinian struggle for existence threatened to undermine fatally their inclination towards a romantic vision of nature as a harmonious, aesthetic unity. As we have seen, Haeckel used his concept of the *Kunsttrieb* to play down the importance which Darwin attached to natural selection, and instead portrayed evolution as a linear progression towards ever higher, more beautiful organic forms. Bölsche, on the other hand, thought Darwin's work itself – or at least those aspects of it which appealed to him – could be used to support his own mystical conception of nature. Darwin, he claimed, was not the author of a radically materialist theory of species change, but rather the first thinker to find a means of reconciling the 'inexorable selection of the useful and the apparently selfless world of ideals'.¹⁹ This he supposedly achieved by proving that

¹⁸ Darwin, *The Descent of Man, and Selection in Relation to Sex*, second edn, 2 vols (London, 1877), I, 91–2.

¹⁹ Bölsche, 'Charles Darwin und die moderne Ästhetik', *Der Kunstwart*, 1 (1888): 125–6, p. 125.

the ideal, the feeling for beauty was originally something useful, conducive to the survival of the species. The fundamentally original and decisive idea which helped him here was that the origin of art is intimately bound up with love.

Bölsche, in other words, not only aestheticizes evolution – and in particular the process of sexual selection, which he actually describes as an ‘aesthetic selection’²⁰ – in so far as he views the struggle for existence as a contest resolved not in favour of the strongest, but rather the most beautiful individuals. He also sexualizes aesthetic activity, seeing in the sex drive, which incites each organism to attract potential mates by evolving beautiful forms, by displaying its brightly coloured plumage or by producing mellifluous sounds, the unconscious, biological basis of all art. Darwin’s greatest achievement, at least according to Bölsche’s reading of him, was to have demonstrated the ‘erotic factor in the genesis of aesthetics’.²¹

In several notes dating from between the years 1871 and 1873, Nietzsche also discusses the relationship between the sex drive and beauty. Written while he was still in thrall to Schopenhauerian metaphysics, these observations are clearly pseudo-Darwinian in character, combining as they do the rhetoric of the struggle for existence with the typically romantic idea that Nature, impelled by a ‘will to beauty’, is striving towards the realization of aesthetic forms:

The plant, which in the ceaseless struggle for existence is able to bring forth only withered flowers, suddenly gazes at us, after it has been removed from this struggle by a happy fate, with the eye of beauty. . . . Nature makes efforts to achieve beauty: where this is accomplished, it ensures that the former will be able to reproduce itself: to which end it requires a highly elaborate mechanism operating between the animal and vegetable world, if the beautiful individual flower is to be perpetuated.

(III 3, 7[121])

The sense of *beauty* connected to procreation.

(III 4, 19[152])

These youthful reflections underline the significance he attaches throughout his career to the positive, life-affirming qualities of art, qualities which it possesses because creativity is itself a force of nature, the very essence of Life. In these early notes, he associates beauty with abundance, superfluity, strength; it is ‘Nature’s smile, a surplus of energy and sensation of pleasure enjoyed by existence itself: think of the plant . . . The purpose of the beautiful is to tempt one to exist’ (III 3, 7[27]). Beauty is the means by which Nature perpetuates itself; it arouses sexual desire, and, with the promise of a momentary reprieve from the remorseless struggle for existence, entices

²⁰ Bölsche, *Das Liebesleben in der Natur*, II, 387.

²¹ Bölsche, ‘Charles Darwin und die moderne Ästhetik’, p. 125.

each and every organism to reproduce itself. Without beauty, then, the world would simply cease to be. Over fifteen years later, Nietzsche conceives the function of beauty in almost identical terms. His early appreciation of the biological relationship between beauty and reproduction is a clear example of the continuity of his thought which I have been tracing in this paper, for this will later become a dominant motif in his mature writings on art.

Nietzsche grounds his later physiological aesthetics upon two basic, inter-related claims: 'that aesthetic values rest upon biological values; that aesthetic feelings of well-being are biological feelings of well-being' (VIII 3, 16[75]). Let us look at these two propositions separately. The first follows the pattern Nietzsche established in his treatment of moral values. In the post-Darwinian world, Nietzsche realizes, aesthetic values, like all values, must derive their legitimacy not from an unimpeachable metaphysical or theological source, but from 'biological assumptions about growth and progress' (VIII 3, 17[9]) – in other words, from the 'general category of the biological values of what is useful, beneficial, life-enhancing' (VIII 2, 10[167]). Accordingly, Nietzsche argues that aesthetic judgements have evolved over time: originating in particular kinds of instinctive reactions which offered a selective advantage in the struggle for existence, they were refined by generations of ancestral inheritance until they became apparently 'rational' acts of valuation. It would appear, then, that, in outline at least, his argument differs little from that later advanced by Konrad Lange. But he gives it a typically Nietzschean twist. The engine of evolution is for Nietzsche not natural selection, but rather the will to power. Accordingly we label 'beautiful' not only that which is in some way conducive to the survival of either the individual organism or the species (depending, of course, on whether the aesthetic values of the *Übermensch* or those of the *Heerdenmensch* are in question), but also that which arouses in us the 'increase in the feeling of power' he sees as comprising evolutionary advance.²² The opposite, of course, holds true for the value judgement 'ugly': 'That which instinctively *repels* us, aesthetically, is proved by man's longest experience to be harmful, dangerous, worthy of mistrust: the aesthetic instinct which suddenly expresses itself (e.g. in disgust) contains a judgement' (VIII 2, 10[167]).

The idea that aesthetic value judgements express an organism's 'survival values' (*Erhaltungswerthe*) is inextricably linked with the second claim underpinning Nietzsche's physiology of art: his assertion of the identity of aesthetic and biological pleasure. What form does this pleasure take; what constitutes the aesthetic state? Art or any 'aesthetic doing and seeing', he claims in *Twilight of the Idols*, is impossible without the 'physiological

²² See e.g. *The Gay Science* 349; VIII 1, 6[26], p. 250; 7[9], p. 305; 7[44]. Nietzsche's theory of evolution is discussed in more detail in my book *Nietzsche, Biology and Metaphor* (Cambridge, 2002).

precondition' of intoxication – thus resurrecting in his last extended, published discussion of aesthetics a concept he introduced in his first. Intoxication increases the 'sensitivity of the whole machine', while at the same time bringing with it the 'feeling of increased power and plenitude' (TI, pp. 46–7). Without this greater excitability, without this feeling of pregnant potency, aesthetic production, which Nietzsche understands essentially as a process of enrichment, of idealization, cannot take place. Art arises from – is in fact identical with – the ineluctable urge to perfect, to transform the material world.

In the aesthetic state, then, the organism experiences an irresistible feeling of superabundant energy which must be discharged and channelled into creativity. In this, it resembles – or rather, *is actually a species of* – sexual arousal. This conception of aesthetic pleasure Nietzsche explicitly develops in opposition to the Kantian model of pleasure 'apart from any interest',²³ which he attacks in the third essay of *On the Genealogy of Morals*. Kant, of course, argues that the aesthetic attitude involves detachment from appetitive behaviour, from purposiveness, and above all from sexuality. For Nietzsche, on the other hand, the work of art, like the object of sexual attraction, actually stimulates desire. It is impossible (at least for a male, heterosexual viewer) to gaze at a female nude 'without interest' – Pygmalion, he adds facetiously, was by no means an 'unaesthetic man' (GM III 6, p. 84). His real target here, however, is not so much Kant as Schopenhauer, who, as he correctly observes, appropriated the 'Kantian version of the aesthetic problem – although he certainly did not view it through Kantian eyes' (GM III 6, p. 83). Though Kant holds that disinterestedness is a necessary condition for aesthetic pleasure, it is not its end. The object in which we take pleasure is a kind of 'free' orderliness, the kind of orderliness we recognize in an object of perception when we bring it under a concept but which, in the case of the beautiful, is perceived without categorizing it in this way. For Schopenhauer, however, the object of pleasure is one's own state of disinterestedness: the pleasure gained from a temporary release from the blind urging of the will, the celebration of the 'Sabbath after the hard labour of desire'. As a means of restraining the human being's 'sexual "interest"' (GM III 6, p. 84), art thus gestures towards the ethic of self-denial which he advocates. This model of aesthetic experience as disinterested contemplation is, however, self-defeating, Nietzsche contends, because art remains enmeshed within the economy of means and ends: the momentary state of serene detachment is for Schopenhauer itself an object of desire, something which he desperately craved in order to deliver him from the tyranny of his own sexuality. Repudiating the Kantian-Schopenhauerian conception of aesthetic experience, Nietzsche embraces instead the view of Stendhal, 'a no-less sensual but more happily constituted nature than Schopenhauer', whose equally famous description of beauty as 'a

²³ Kant, *Critique of Judgement*, p. 50.

promise of happiness' he makes his own, interpreting it in the more narrow sense as the promise of sexual pleasure, as a means to '*arouse the will*' (GM III 6, p. 85). In *Twilight of the Idols*, he again attacks Schopenhauer for mistakenly seeing in beauty the means of denying the 'procreative drive'. This claim, he declares, is contradicted by nature: '*Why is there any beauty in sound, colour, fragrance, rhythmic movements in nature? What is it that forces out beauty?*' He answers these questions this time by quoting Plato, who, in *The Symposium*, argues that 'all beauty stimulates procreation' (TI, p. 54). Backed up by the authority of Stendhal and Plato, Nietzsche thus restates a position he had occupied since the early 1870s.

While Stendhal's equation of beauty with 'a promise of happiness' is often cited in discussions of Nietzsche's later aesthetics, the extent of his debt to the French novelist does not seem to be generally recognized. There are, however, a number of coincidences between the organic processes which Nietzsche outlines in his 'physiology of art' and those described by Stendhal in that work which he himself characterizes as a 'physiology of love'.²⁴ Perhaps the best-known feature of *De l'amour (Love)* is the analysis of the role that the creative imagination plays in love – its ability to transfigure the image of the beloved – which he elucidates in terms of the natural phenomenon of 'crystallization':

At the salt mines in Salzburg, they throw a leafless wintry bough into one of the abandoned workings. Two or three months later they pull it out covered with a shining deposit of crystals. The smallest twig, no bigger than a tom-tit's claw, is studded with a galaxy of scintillating diamonds. The original branch is no longer recognizable.²⁵

Similarly, love arises from a spontaneous and unwilling mental activity which coats the object of desire with a cluster of perfections which do not in reality exist. Love, as the product of this process of crystallization, belongs to man's biological being; it is an *élan vital* springing from 'Nature, which ordains that we shall feel pleasure and sends the blood to our heads'. Love is an essential, life-enhancing fiction, and beauty is to a certain extent the product of conscious self-delusion: 'From the moment he falls in love even the wisest man no longer sees anything *as it really is*.' Stendhal even goes so far as to suggest a number of physical causes for this erotic delirium: 'an incipient madness, a rush of blood to the brain, a disorder of the nervous system and the cerebral centres'.²⁶ For Nietzsche, art is an analogous process of crystallization, arising from that same '*making perfect, seeing as perfect*' which is peculiar to the 'the cerebral system supercharged with sexual energy', from the conjunction of the artist's creative instinct and the 'distribution of semen in his blood' (VIII 1, 8[1], p. 335). Nietzsche's artist, like Stendhal's

²⁴ Stendhal, *Love* (Harmondsworth, 1975), p. 33.

²⁵ *Ibid.*, p. 45.

²⁶ *Ibid.*, pp. 46, 60 and 60n.

lover, projects a web of perfections onto the world; the aesthetic state ‘*bathes* the object that gives rise to it with a *magic* . . . which, however, *is wholly alien to the nature of that object*’. In other words: ‘To experience a thing as beautiful means: to experience it necessarily falsely’. Nietzsche even employs Stendhal’s own terminology: ‘once the aesthetic drive is at work, a whole host of other perfections, with their origins elsewhere, crystallize around “the individual beautiful object”’. As if to confirm the source of his ideas, he links the aesthetic state with the ‘sight of a “beautiful” woman’ (VIII 2, 10[167]), with the idealizing effects of ‘love’ (VIII 1, 8[1], p. 336). If, in 1872, he had tentatively proposed a link between beauty and reproduction, between the sex drive and the evolution of aesthetic sensibility, this claim now becomes absolutely crucial to his mature philosophy of art. Aesthetic pleasure is essentially sexual pleasure, for sexual arousal is the oldest and original form of intoxication. It is erotic ecstasy which constitutes (gives rise to) the aesthetic state: ‘The energy which one expends in the conception of art and in the sexual act is one and the same: there is only one kind of energy’ (VIII 3, 23[2]). Aesthetic experience is, however, a sublimated form of this libidinous excitement, just as for Plato philosophy is a desire for beauty which transcends the physical: ‘sensuality is not cancelled out through the onset of the aesthetic condition, as Schopenhauer believed, but only transfigured and no longer present to the consciousness as a sexual stimulus’ (GM III 8, p. 91).

But Nietzsche goes further than Stendhal (and Plato), and, like Bölsche, asserts a direct relationship between the sex drive and *evolution*. What connects them is the will to power. In those states of sexual arousal in which the organism experiences an overwhelming feeling of ‘*perfection*’, it actively strives for ‘the upward movement of its type’ [*Aufwärtsbewegung seines Typus*], a movement that is made possible through the ‘extraordinary expansion of its feeling of power’ (VIII 2, 9[102]). By generating this surplus of energy which accompanies the state of erotic intoxication (most potent, of course, during the mating season), the organism is able to bring forth ‘new organs, new faculties, colours, forms’ (VIII 3, 14[117]).²⁷ This ‘feeling of intoxication’, then, is not only the necessary physiological precondition for artistic production, but also for organic change. At lower levels of life, the same energy which in humans is discharged in the artistic process, is spent in the development of new organic structures: ‘Here it makes no difference if one is man or animal’ (VIII 3, 14[120]). In this respect, too, Nietzsche is reiterating a claim which he had first made at the very beginning of his career: art and evolution spring from the same source; evolution is an artistic process. But whereas the Nietzsche of *The Birth of Tragedy* believed that this process has its origin in a mysterious *Kunsttrieb* (albeit one which he attempts to explain – at least to some extent – in physiological terms), the

²⁷ See also: ‘In animals this state produces new materials, pigments, colours and forms: above all new movements, new rhythms, new mating calls and seductions’ (VIII 3, 14[120]).

later Nietzsche argues instead that the 'primordial artistic force' (VIII 2, 9[102]) common to both the aesthetic state and animal life arises from sexual excitement, from the feeling of plenitude associated with the free expression of the libidinal drives – in other words, from the will to power. Erotic love, as the purest manifestation of this force, is art as 'organic function' (VIII 3, 14[120]).

The aesthetic state itself is a reflex of this carnal animal potency: on the one hand, art expresses in images and desires the 'excess and overflow of blooming physicality'; on the other, it arouses 'the animal functions' through the images and desires of an intensified life. It is by exciting the muscles and senses, and by inflaming sexual desire, that art acts as an 'enhancement of the feeling of life, a stimulant to it' (VIII 2, 9[102]). Like sexual love, art has the capacity to transfigure and affirm existence by appealing not to the detached, contemplative ego, but to our basest and oldest instincts. In doing so, art *literally* seduces mankind into continued existence. In this life-affirming, life-sustaining state, we are even able to transform the objects and experiences which we have hitherto evaluated as 'ugly' (VIII 2, 10[168]).

But art does not only have the capacity to affirm life. The highest aesthetic achievement is to shape and form life itself: 'To become master of the chaos that one is; to compel one's chaos to become form' (VIII 3, 14[61]). This is life lived as 'the grand style', and it is in the artist – at least at this stage of Nietzsche's thinking – that we apprehend the mysterious figure of the *Übermensch*. The frenzy of artistic production, when enormous transformative energies are released and organic memory retrieves distant recollections of a 'distant and fleeting world of sensations' (VIII 3, 14[119]), of 'man's oldest *festal joys*' (VIII 2, 9[102]) – all this makes possible the temporary and individual leaps beyond the ambit of the herd which constitute Nietzschean evolution:

The sensations of space and time are altered: enormous distances are surveyed and *can*, as it were, *be perceived* for the first time
 the *extension* of vision over greater masses and expanses
 the *refinement of the organ* for the apprehension of much that is small and fleeting
divination, the power of understanding with only the least assistance, at every suggestion: 'intelligent' *sensuality* . . .
strength as feeling of mastery in the muscles, as liveness and pleasure in movement, as dance, as levity and *presto*
 strength as pleasure in the proof of strength, as bravado, adventure, fearlessness, matters of indifference.

(VIII 3, 14[117])

In the same way that lower organisms manipulate their erotic potential energy to bring forth new forms and organic structures, so the *Übermensch*, by tapping into his own animal vigour, modulating biological impulses and

mastering desire, acquires 'wings and new abilities' (VIII 3, 14[120]) and creates new evolutionary possibilities for the all-too-human. The self-created and self-overcoming *Übermensch* is both artist and artefact, lover and beloved. Nietzsche does not only seek to demonstrate, in Bölsche's words, the 'erotic factor in the genesis of aesthetics'; he also lays bare the aesthetic and erotic aspect of the past and future evolution of the human race.

CONCLUSION

Nietzsche's implicit commitment to an evolutionary aesthetics is a position which he occupied with remarkable consistency from the beginning of his philosophical career right to its very end. Like many of his contemporaries in the post-Darwinian world, he holds not only that the human aesthetic faculty is simply a refinement of certain behaviour prefigured in lower animals, but that evolution itself is an artistic process. This Nietzsche initially sought to explain with his early – and by no means original – notion of a *Kunsttrieb*, by which he understands, rather like Ernst Haeckel, not only a metaphysical force driving all change in both the organic and inorganic world, but also the creative instincts of individual organisms. This idea resurfaces in his later writings in modified form, where, instead of conceiving it in terms of a supra-human, transformative impulse, he now sees the *Kunsttrieb* as identical with the sex drive (*Geschlechtstrieb*). Nevertheless, earlier notes had already foreshadowed many of the ideas which are constitutive of his so-called 'physiology of art'. Evolution takes place, Nietzsche ultimately believes – and here his thought anticipates that of Wilhelm Bölsche – through the transfigurative experience of erotic intoxication.

Sidney Sussex College, Cambridge