

An abstract, high-contrast image showing glowing, organic, and cellular-like structures in shades of orange, red, and yellow against a dark background, suggesting biological or germinal life.

GERMINAL LIFE

The difference and repetiton of Deleuze

Keith Ansell Pearson

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GERMINAL LIFE

'*Germinal Life* carries forward Deleuze and Guattari's project of a philosophy of vitality, in creative dialogue with the latest developments in the sciences of life and theories of technology. An innovative mediation at the boundary between philosophy, science, and cultural studies.'

Brian Massumi, *Australian National University*

'*Germinal Life* is a brilliant—and critical—reworking of Deleuze, mapping a new tradition of biophilosophy. With this follow-up to *Viroid Life*, Keith Ansell Pearson has established himself as one of Britain's most exciting young philosophers.'

David Wood, *Vanderbilt University*

'This is a very important book on a topic that is going to be of increasing importance over the next several years. It addresses the overlapping audiences of continental philosophy, cultural studies, critical theory and science studies to provoke a rethinking of the boundaries dividing life from non-life, the human and the post-human (super and sub-human).'

Elizabeth Grosz, *SUNY at Buffalo, USA*

'Keith Ansell Pearson approaches the work of Gilles Deleuze with the precision of a diamond cutter, exposing brilliant facets of thought "beyond the human condition".'

Stanley Shostak, *University of Pittsburgh*

Germinal Life: The Difference and Repetition of Deleuze is the highly successful sequel to *Viroid Life: Perspectives on Nietzsche and the Transhuman Condition*. Where *Viroid Life* provided a compelling reading of Nietzsche's philosophy of the human, *Germinal Life* is a highly original and incisive study of the biophilosophical aspects of Deleuze's thought. In particular, Keith Ansell Pearson provides fresh and insightful readings of Deleuze's work on Bergson and skillfully shows how Bergsonism is the crucial factor in any encounter with Deleuze's philosophy of life.

Germinal Life also provides new insights into Deleuze's most famous texts, *Difference and Repetition* and *A Thousand Plateaus*. Ansell Pearson investigates Deleuze's relation to some of the most original thinkers of modernity, from Darwin to Freud and Nietzsche, and explores the connections between Deleuze and more recent thinkers such as Adorno and Merleau-Ponty. Ansell Pearson also offers imaginative readings of works of literature such as Hardy's *Tess*. Concluding with reflections on the figuration of the 'fold' and 'superfold' in Deleuze, *Germinal Life* confronts what ultimately it might mean to think 'beyond' the human.

Keith Ansell Pearson is Professor of Philosophy at the University of Warwick. He is the author of *Viroid Life* and editor of *Deleuze and Philosophy*, also published by Routledge.

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The difference and repetition of Deleuze

Keith Ansell Pearson



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FOR JASMINE AND RICHARD

Immanence can be said to be the burning issue of all philosophy because it takes on all the dangers that philosophy must confront, all the condemnations, persecutions, and repudiations that it undergoes.

(G.Deleuze and F.Guattari, *What is Philosophy?*, 1991)

This is an ancient and eternal story: what formerly happened with the Stoics still happens today, as soon as any philosophy begins to believe in itself. It always creates the world in its own image; it cannot do otherwise. Philosophy is the tyrannical drive itself, the most spiritual will to power, to the 'creation of the world', to the *causa prima*.

(F.Nietzsche, *Beyond Good and Evil*, 1886)

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A NOTE ON TRANSLATIONS

Readers should note that in many instances translations from the French and German have been modified (on most occasions only slightly) and this is indicated in the text only now and again. Full details of my references and sources can be found in the extensive bibliography provided at the end of the book. I am grateful to Melissa McMahon for allowing me to freely use her unpublished translation of Deleuze's 1956 essay on Bergson and difference, a new version of which is to be published in John Mullarkey's collection of essays *The New Bergson* (Manchester University Press, forthcoming).

INTRODUCTION

Repeating the difference of Deleuze

In no small measure, the intellectual lineage is straight from Weismann to today.

(Kauffman 1995:274)

Put bluntly, closed systems are bound to be finished.

(Adorno 1966:35; 1973:27)

I

The aim of this book is to illuminate the character of Deleuze's philosophy by situating it in the context of a neglected modern tradition, that of modern biophilosophy, which runs from Darwin and Weismann through to Bergson and Freud, and which also encompasses the work of a diverse and little-known group of thinkers such as Raymond Ruyer, Gilbert Simondon, and Jacob von Uexküll. The fact that this trajectory of thought going back to the neo-Darwinism of Weismann, and exerting a decisive influence on the thought of Deleuze, has been so neglected might explain why to date there has been so little in the way of an incisive philosophical encounter with Deleuze's work. Deleuze is difficult to place in the philosophical discourse of modernity largely, I suspect, because of the peculiar character of his philosophical thought, with its investments in biology and ethology.

Deleuze's turn to a conception of difference in the 1950s entailed a highly distinctive and novel Bergsonism since to write about Bergson at this time, and from the perspective of a concern with 'difference', was not a task that would have been either fashionable or predictable. Bergson has been an unduly neglected figure within recent continental philosophy. It is part of the brilliance of Deleuze's readings to show the vital importance and continuing relevance of his great texts on time, creative evolution, and memory, for the staging of philosophical problems. I believe that the character of Deleuze's 'Bergsonism' has been little understood, and yet I want to show that it plays the crucial role in the unfolding of his philosophy as a philosophy of 'germinal life'. In this study the focus is on Bergson's conception of 'creative

evolution' and on the way in which an encounter with it can be shown to be of crucial importance for any attempt to comprehend and work through some of the central problems of philosophic modernity. It is through Bergsonism that Deleuze seeks to re-invent this modernity and to articulate a radical project for philosophy. Philosophy is a highly autonomous practice for Deleuze and the distinctive task he prescribes for it, from his early work on Bergson to his last major work, co-authored with Guattari, *What is Philosophy?* (1991), amounts to the complex and paradoxical one of thinking 'beyond' the human condition. In the course of this inquiry we shall have the chance to track the differing stresses Deleuze gives to the meaning of this 'beyond' as his work unfolds and develops. The critical question to ask, and which I simply pose here, is this: does thinking beyond the human condition serve to expand the horizons by which we think that condition and so deepen its possible experience, or is the 'change of concept', in regard to the overhuman, so dramatic that it requires the dissolution of the human form and the end of 'the human condition'? Such a question takes us, I believe, to the heart of Deleuze's project and brings us into a confrontation with its peculiar challenge, as well as its most innovative and demanding aspects.

Each one of the three chapters in this book offers a treatment of what it means to think beyond the human condition. They are united by the attempt to examine, and to subject to critical but informed scrutiny, the character of Deleuze's 'Bergsonism'. In the first chapter I examine Deleuze's early engagement with Bergson in the major study he wrote in 1966. I also utilize the neglected and largely unknown 1956 essay on Bergson. The focus is on Bergson's notion of duration and how this notion informs his conception of a creative evolution, especially how philosophy is able, in spite of the natural bent of the human intellect, which produces a mechanistic and spatial account of the real, to think the character of this evolution in both speculative and vital terms. In seeking to think 'beyond' the human condition the task of this philosophy of creative evolution can be shown to be an 'ethical' one, concerned with opening up the human experience to a field of alterity. In the second chapter my attention shifts to Deleuze's first major attempt at 'independent' philosophy in *Difference and Repetition* (1968), in which he no longer relied on the history of philosophy but sought to articulate, still utilizing the resources of the tradition from Duns Scotus through to Heidegger and Nietzsche, a specifically modern project of thinking difference 'and' repetition. He produced in the process a unique 'schizo-scholasticism'. My attention is focused once again on the biophilosophical aspects of the work, which obviously means that key aspects of this immensely fertile and complex text are neglected. Nevertheless, in adopting such a concentrated focus I hope to yield novel and incisive insights into Deleuze's thinking of difference and repetition, especially in relation to a number of the key theoretical figures of the modern period such as Darwin, Freud, and Nietzsche. The reasons informing

this particular selection of thinkers will become clearer later in the Introduction. The reading of *Difference and Repetition* is supplemented, in terms of the task of bringing out the ethics of the project, by a reading of the notion of the ‘event’ that is more explicitly articulated in its sister work *The Logic of Sense* (1969).

In Chapter 3 I move forward some considerable distance in the trajectory of Deleuze’s work to a treatment of the essential biophilosophical dimensions of the text he co-produced with Guattari in 1980, *A Thousand Plateaus*. I examine key aspects of this work in terms of its engagement with modern evolutionary theory and modern ethology, aiming to demonstrate the innovations made in the text with regard to a ‘machinic’ approach to questions of ‘evolution’ and to an ethology which focuses not on behaviour but on assemblages. I also pay special attention to the configuration of ‘Bergsonism’ in this work, in particular the ‘meaning’ of its ‘Memories of a Bergsonian’. Deleuze now approaches ‘creative evolution’ in terms of ‘becomings’ that are held to be peculiar to modes of creative *involution* (a move anticipated, in part, in *Difference and Repetition*: ‘only the involuted evolves’). It is in the context of these anomalous becomings that one can, I believe, best demonstrate the experimental character, and illuminate the tensions, of an ethological ethics in respect of ‘nonhuman’ becomings of the human. This chapter concludes with some speculations on Deleuze’s last work, co-authored with Guattari, *What is Philosophy?* (1991), especially in regard to its construction of philosophy as a form of ‘absolute deterritorialization’ and its invocation of a new earth and a new people.

In the conclusion I take a look at Deleuze’s return to the question of the fold as it is articulated in two texts of the second half of the 1980s, the studies of Leibniz (1988) and Foucault (1986), and relate the movements of thought taking place in them to the fundamental aim of Deleuze’s philosophical project to think, with the aid of a Spinozism and a Bergsonism, beyond the human condition.

Each chapter concludes with an appraisal of the moves made by Deleuze with regard to thinking ‘beyond’ the human condition. In order to open out Deleuze’s texts to a philosophical encounter I have found it helpful to bring his thinking into confrontation with other major contemporary figures, notably Merleau-Ponty in Chapter 1 and Adorno in the denouement to Chapter 3. What is at stake in this demanding and difficult attempt to develop an *ethics* of germinal life and to produce a philosophy of the Event—whether it rests, as some have contended, on a disavowal of the human condition, or whether it succeeds in showing that a radical philosophy must necessarily think trans- or overhumanly—will, I hope, unfold dramatically in all its implication and complication in the attentive explication that follows. Although the reading of Deleuze that is cultivated here is *peculiar* to myself, and does not pretend to either define or exhaust the ‘meaning’ of *his* event once and for all, it is a reading I hope that will serve to provoke

and challenge, in all sorts of unpredictable and incalculable ways, those who have a concern with his work and its legacy. This book amounts to an affirmation of Deleuze's event, but it is not the affirmation of a braying-ass.

II

Let me now say something at once more general and more specific about this book. There is a real danger in the recent upsurge of interest in his texts that studies will proliferate which address and construe Deleuze as a philosopher of life—as a vitalist thinker—in an all too casual and cavalier manner without any serious comprehension of, or probing insight into, the biophilosophical dimensions of his project. It is the aim of this study to counter this tendency. The biophilosophical aspects of Deleuze's thought have to be taken seriously, contextualized, and the stakes of his working out of a philosophy of germinal life need to be carefully unfolded. It would be inadequate, however, to restrict Deleuze's project to the merely biological and to claim it solely or exclusively for a novel 'philosophical biology'. To understand why this is so will require navigating intricate and interweaving lines of thought.

Deleuze conceived a thinking of difference and repetition as historically specific to capitalist modernity. The philosophy of difference emerges at that 'moment' in history when the most stereotypical and mechanical repetitions appear to have taken over the forces of life completely and subjected it to a law of entropy. It is this, which motivates his engagement with biology, with ethology, with ethics, and with literature, as he seeks to articulate a critical modernity that exposes a series of the transcendental illusions encompassing both scientific and philosophical thought. These illusions concern the nature of time, consciousness, death, subjectivity, and so on, and are manifest in our models of capital and of entropy, to give two of the most important examples. The critical questions I pose of Deleuze's philosophy concern his attempt to think of Being as immanence and in terms of the 'event'. We need to determine how Deleuze envisages the 'overcoming' of nihilism through the praxis of a critical modernity. Before returning to this question I want to provide some insight into the theoretical context which will, I believe, enable us to stage an instructive and novel encounter with Deleuze.

There is, I believe, a quite specific intellectual context within which to illuminate Deleuze's work and its engagement with biophilosophy, and this is the tradition of neo-Darwinism that stems from the revolutionary work of August Weismann carried out at the end of the nineteenth century. The idea of 'germinal life' pursued in this book resonates with a number of sources and thinkers. In addition to Deleuze these include thinkers such as Bergson and Freud, and novelists such as D.H. Lawrence, Thomas Hardy, and Emile Zola. The key figure in this lineage is Weismann (1834–1914), the founding figure in the emergence of modern neo-Darwinism. An engagement

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with Weismann runs throughout Deleuze's writings, an appreciation of which provides, I want to demonstrate, valuable insights into the character of his philosophy of germinal life.

Weismann is an immensely complicated figure whose work combines elements of nineteenth-century biology that were to be discredited in the twentieth century, such as the recapitulation thesis (to be encountered in Chapter 2), as well as aspects of the new science of genetics that were to prove so seminal in terms of the consolidation of neo-Darwinism with the modern synthesis of the 1930s and the discoveries of molecular biology in the 1950s. He wanted a scientifically accurate account of heredity and began by questioning Darwin's confused theory of pangenesis (the idea that every cell of the body contributes minute particles, the 'gemmules', to the germ cells and so participates in the transmission of acquired characteristics). He then made an assault on Lamarck's account of evolution, which relied on the doctrine of the inheritance of acquired characteristics and speculation regarding the use and disuse of organs. The effect of his revolutionary work in biology was to sever Darwinism from its entanglement in Lamarckian dogma, so making way for the establishment of a strictly mechanistic and nonvitalist theory of evolution by placing all the emphasis on natural selection as the blind machine that guarantees the reproduction of life from generation to generation in terms of an unbroken descent. For Weismann life is able to replicate and reproduce itself owing to the powers of a special hereditary substance, the germ plasm (what today is called DNA), which controls and programmes in advance, and without the intervention of external factors, the development of the parts of an organism and which gets transmitted from one generation to the next in a continuous passage of descent. The germ cells differ in their function and structure from the somatic cells, and making this distinction between the two led Weismann to introducing his famous 'barrier' by which changes in the phenotype can have no effect on the genotype. Weismann is insistent that the hereditary substance 'can never be formed anew', but 'can only grow, multiply, and be transmitted from one generation to another' (Weismann 1893: xiii). His thesis was updated in the 1950s by work in molecular biology that sought to demonstrate that no information in the properties of somatic proteins can be transferred to the nucleic acids of DNA.

Weismann's work grew out of developments in cytology in the mid-nineteenth century. The idea that organisms are made of cells dates from the 1830s, while in the 1870s the cell nucleus was revealed for the first time by enhanced microscopic power and, a short while after, the chromosomes in that nucleus were demonstrated to be the birthplace of new cells. In the early 1880s the crucial discovery was made that the sex cells divide differently from the cells that make up the rest of the body. Weismann interpreted this 'difference' in terms of a division of labour between germ and soma plasms. The germ-cells are restricted to just the one task and function, that of making

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new organisms through the intermingling of inherited information from the parent cells. Weismann obviously did not know that *all* cells, including somatic ones, contain the total complement of inherited information. However, as Depew and Weber point out, ignorance of this fact was not crucial since Weismann was able to argue that the sequestering of the germ line of egg and sperm occurs so early in ontogeny (the sequence of cellular divisions) that any developments in the somatic cells can have no effect on the process (rats deprived of tails do not go on to breed tailless rats) (Depew and Weber 1996:189).

Weismann did not break entirely with the developmentalist tradition and still subscribed to its central thesis on recapitulation regarding the relation between ontogeny and phylogeny. Where the break begins to emerge is in the stress placed on the ‘immortality’ of the germ line (Weismann 1893:183–92), which serves to sever the Darwinian link with the tradition of epigenesis that since Aristotle had treated reproduction and growth as phases of one single process of development. Depew and Weber see Weismann’s germ line, in fact, as presaging the revival of the old idea of preformationism that takes place with Mendel’s genetics, and, indeed, in the preface to the English translation of his work, Weismann admits that having sought an epigenetic, and not an evolutionary, approach, he eventually became convinced of the impossibility of an epigenetic account of the organism (xiii–xiv). Weismann anticipates twentieth-century Darwinism in conceiving adaptedness on the level of changing proportions of the cells that inform a population, while evolutionary novelty is the result of internal change in the germ cells. In today’s language all mutations are seen to arise from changes in the sequences of DNA (Depew and Weber 1996:189–90). In addition, his later work on ‘germinal selection’, which aimed to show the possibility of conflict between *levels* of selection, anticipates contemporary accounts of genic selectionism, such as the doctrine of the selfish gene. The field of competition is seen to take place on the cellular level with germinal cells battling it out with each other ‘for nourishment in an intracellular Malthusian world’, so that what is good for the egg and sperm might not be good for the organism (191).

Weismann’s biology of the germ-plasm is a biophilosophy of the species not of individuals. The germ line represents the skeleton of the species on which individuals get attached as excrescences. Any changes that are the result of outside influences are merely temporary and disappear from evolution when the individual reaches its end. External events are no more than transient episodes that affect particular life-forms but not the species, which goes on regardless of changes to individuals. The germ line is thus, it is alleged in Weismann’s account, guaranteed the reproduction of identical cells. Although germ cells vary from species to species, new structures required by evolution are produced not by individuals, but by the hereditary arrangements contained in the germ cells. So while natural selection

appear to be operating on the aspects of an adult organism, in actuality it is working only on the predispositions lying concealed in the germ cell. The germ line, therefore, is outside the reach of any variation that takes place in individuals of the species (for further insight see Weismann 1882, Volume II, 634ff.; Jacob 1974:216–17; see also Ruyer 1946:138ff.).

Weismann's intention was to account for the transformation of forms of life with the 'sole aid of Darwinian principles', denying both the existence of an 'internal developmental power' and the assumption of a 'phyletic vital force' (Weismann 1882, Volume II, 634–6). But this adherence to mechanistic explanation does not rule out for Weismann the admission of teleology: 'Mechanism and teleology do not exclude one another.... Without teleology there would be no mechanism, but only a confusion of crude forces; and without mechanism there would be no teleology, for how could the latter otherwise effect its purpose?' (716). However, Weismann insists that only natural selection is able to account for the production of the purposive:

The principle of selection solved the riddle as to how what was purposive could conceivably be brought about without the intervention of a directing power, the riddle which animate nature presents to our intelligence at every turn, and in the face of which the mind of a Kant could find no way out.... The selection theory...enables us to understand that there is a continual production of what is non-purposive as well as of what is purposive, but the purposive alone survives, while the non-purposive perishes in the very act of arising.

(Weismann 1909:21)

In other words, the survival of the purposive is to be explained through the existence of an 'intrinsic connection' between the conditions of life and the structural adaptations of an organism, with the adaptations not determined by the organism itself but rather 'called forth by the conditions'. Weismann's reworking of mechanism and teleology is interesting since it shows that Darwinism does not so much jettison a notion of teleology, as commonly supposed, but rather secularizes it.

Georges Canguilhem argued that the exclusion of teleology, as classically conceived, from Darwinian theory does not mean that its conception of life excludes all value-laden terms. 'Success' in life is configured in terms of 'survival' (especially of the fittest). Conceived in this context, he notes, it is difficult not to think that some 'vital' meaning is being attached to the stress within Darwinism on adaptation, 'a meaning determined by comparison of the living with the dead' (Canguilhem 1994:211). The crucial point of the theory is to show that variations in nature—for Darwin these are deviations in structure or instinct—remain without significance or effect without the mechanism of selection. This introduces into biology, Canguilhem contends, a new criterion of 'normality' based on the living creature's relation to

life and death. It is, therefore, not surprising that from the start Darwinism was taken up normatively as both lending support to a moral theory and to a social theory (giving rise to both an ethical Darwinism and a social Darwinism). However, although Darwin did sever the notion of adaptation from any idea of preordained purpose, he did not completely divorce it from a notion of normality. Rather, the norm is no longer tied to a fixed rule but only to a transitive capacity, namely survival and the passing of successful descendants through the struggle for existence. Normality, therefore, is not a property of the living thing in terms of some given or fixed essence, but 'an aspect of the all-encompassing relation between life and death as it affects the individual life form at a given point in time' (212).

I am sure that the work of his former teacher on the normal and the pathological exerted a powerful and lasting influence on Deleuze's thinking. Canguilhem's revaluation of our categories of the normal and the pathological or deviant, of the healthy and the diseased, finds all sorts of echoes in Deleuze's work, from the emphasis in *The Logic of Sense* on the 'crack', which plays a crucial role in Deleuze's reworking of Nietzsche's notion of great health (the health that has incorporated sickness), to the emphasis in *A Thousand Plateaus* on symbiotic complexes, including monstrous couplings and unnatural participations, as the source of real innovation in evolution. It is these kinds of emphases, which mediate Deleuze's reception of Weismann. Weismann's neo-Darwinism is always in danger, whether in its initial formulation as the germ-plasm or the more recent account of DNA, of treating the matter of evolution as a closed genetic system. Although the various biophilosophical engagements which characterize Deleuze's work, such as the concern with creative evolution, the thinking of difference and repetition, and the move towards creative ethology, are highly different in their scope and focus, what motivates all these thought-experiments is a concern with the character of open systems. Indeed, the plane of immanence, which is used to explain the transversal movements of material forces and affects, is presented by Deleuze as the open system *par excellence*.

It is interesting to note that in each case where we can identify an encounter with Weismann in Deleuze we find a favourable reception and a productive reworking. This reworking takes place in three notable places: *Difference and Repetition*, where he reads him in terms of Darwin's revolution and construes his addition to Darwin's doctrine as a further contribution to a biophilosophy of difference on the level of sexed reproduction; in one of the appendices to *The Logic of Sense* where Deleuze provides an 'epic' reading of Zola's novel *La Bête Humaine* in terms of a reworking of Freud's death-drive (which, in turn and in part, is a reworking of Weismann); and, perhaps most crucial of all, in *A Thousand Plateaus*, where Weismann's germ-plasm is transformed into the 'body without organs' which becomes the site of 'intense germen'. In fact, this latter reading of 1980 is strikingly similar to the one we find in the encounter with

Zola and Freud in *The Logic of Sense* of 1969. In both cases Deleuze's aim is to show that the question of heredity is not simply one that is *given*, either by the species or by the continuity of the germ-plasm. Rather, heredity becomes transfigured, and is made vital, through the becoming of the new individual and through a 'law of life' (Nietzsche 1994: Essay III, Section 27) that goes beyond laws of genealogy and filiation. The egg, Deleuze will argue in *A Thousand Plateaus*, is an egg of germinal intensity that does not simply denote a fixed moment of birth or a determinate place of origin. Natality is always inseparable from processes of decoding and deterritorialization (this is the very 'meaning' of germinal life, whether that life be 'difference and repetition', the 'event' of the crack, or anomalous 'animal-becomings'). Once this has been appreciated the way is now opened for a conception of 'creative evolution' that has to do with 'involutions' and with communications that cut across distinct lineages, and so allows for the possibility of an 'ethological' ethics.

There are crucial moves made in Deleuze's biophilosophical thinking, therefore, that are neither consistent nor consonant with the Weismannian tradition. Deleuze is keen to avoid, for example, a purely geneticist account of evolution as well as a DNA mythology. All of this serves to make the character of his biophilosophy very different. Deleuze, of course, never systematically works through the character of his biophilosophy in any of his texts. He never addresses, for example, the tensions that might generate from so freely drawing on different strands of biophilosophical thought. For this reason this study of Deleuze is necessarily an *invention* of his biophilosophy, laying out the centrality of the moment of Weismann, but equally seeking to show that all the different resources provided by modern biology are utilized by Deleuze in terms of his principal philosophical references, notably Bergson, Nietzsche, and Spinoza. As we shall see, Deleuze's conception of biophilosophy is, ultimately, and first and foremost, 'ethical' in the quite specific sense that he reads the likes of Spinoza and Bergson. The crucial reworking of Weismann which Deleuze and Guattari carry out in *A Thousand Plateaus*, in terms of seeking to address the question of how the organism can make itself into a body without organs, will make very little sense unless this point is appreciated.

The fact that the index of the English translation of *Mille Plateaux* contains no reference to Weismann, in spite of the fact that it is the doctrine of the germ-plasm which provides the inspiration for the notion of the body without organs (Weismann is explicitly named in the text), indicates, I think, the extent to which this crucial thinker has been neglected and overlooked both in terms of his importance for understanding Deleuze's work and for understanding large chunks of intellectual modernity. Weismann's neo-Darwinian revolution was not without cultural impact at the time of his own writing. In positing the germ-plasm theory of heredity in terms of an unbroken descent and a fixed channel of communication Weismann laid down

a challenge to a whole generation of writers and thinkers, including the likes of Hardy, Lawrence, Bergson, and Freud. This challenge amounted to nothing less than the challenge of a biological nihilism. The genealogy of life as set up by Weismann means that the substance of life is immortal, not subject to the influences or effects of individual lives and bodies, and so it assumes the appearance of a tremendous inhuman force. Such a view is still expressed today in biology, with its most articulate exponent being Richard Dawkins and his well-known theory of the selfish gene. The nihilism of the message of this theory is quite explicit: 'The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind, pitiless indifference...DNA neither knows nor cares. DNA just is. And we dance to its music' (Dawkins 1995:133).

Deleuze works and reworks a conception of 'evolution' in important ways. In the material on Bergson of 1956 and 1966 attention is focused on the 'creative' and 'virtual' dimensions of evolution. In the work of the late 1960s, notably, *Difference and Repetition*, his attention shifts to 'complex systems' that 'evolve' in terms of an interiorization of their components and constitutive differences (at this point in his writings Deleuze places the word evolution in scare quotes). In his mature work with Guattari, notably *A Thousand Plateaus* (1980), a 'rhizomatics' comes to the fore that fundamentally breaks with genealogical and filiative models of evolution, to the extent that Deleuze is no longer dealing with 'evolution' as a problem of heredity. This move is, in fact, already prefigured in the earlier work with Guattari, *Anti-Oedipus* (1972). From the point of view of 'community' (*la communauté*), they argue in this work, evolution is always disjunctive simply because the cycle is marked by disjunctions. This means that generation is secondary in relation to the cycle and also that the 'transmission'—of genes, for example—is secondary in relation to information and communication. Deleuze and Guattari argue that the 'genetic revolution' of modern biology consists in the discovery that, strictly speaking, there is not a transmission of flows but rather the 'communication of a code or an axiomatic' which informs the flows. To give primacy to the phenomenon of communication in this way is, ultimately, to push into the background the problem of hereditary transmission. The boldness of Deleuze's move consists in extending this insight into the phenomenon of communication to the social field of desire (see Deleuze and Guattari 1972:328; 1984:276).

Deleuze's significance as a thinker of creative evolution lies in the fact that he responds to the challenge presented by Weismann (and by other thinkers of life and death, such as Nietzsche, Freud, and Bergson) by aiming to demonstrate the immanent movement beyond nihilism. Deleuze is a philosopher of the *crack*, of the cracks of life and of modes of communication that allow for novel becomings and transformations, so escaping the grim law of life implicit in Weismann's theory of the germ-plasm that would condemn

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'individual' life to the eternal return of a nihilistic fate and that would dissipate the forces of the outside and minimize their influence. The aim in this study of the germinal life is to work through and navigate a way beyond two nihilisms of modernity, the potential nihilism of Weismann's germ-plasmic finality and the perceived nihilism of Freud's death-drive.

III

I now want to say something in advance about the *ethics* of this biophilosophical project, which is a concern in each of the chapters which make up the present study. A notion of ethics has to be seen not as an incidental element of Deleuze's project but as one of its most fundamental and essential elements. Deleuze is, in fact, compelled by the very adventure of thought to think ethically and even to think an ethics of matter itself. In his work we find a number of conceptions of this ethics, including an ethics of the eternal return (his book of 1962 on Nietzsche and *Difference and Repetition*, 1968), an ethics of the event (*The Logic of Sense, What is Philosophy?*), an ethics of affective bodies and an ethological ethics (the two books on Spinoza of 1968 and 1981 (first published in 1970 in a shorter version), and *A Thousand Plateaus*, 1980), and so on. These can all be shown to be differing articulations, however, of one and the same ethics of Being as Deleuze conceives it (univocal, the plane of immanence, germinal life, etc.). In this part of the Introduction I wish to speak in general terms about the figuration of ethics in Deleuze by discussing its treatment in his big book on Spinoza and expressionism of 1968 since, although this text, with its novel reading of Spinoza, does not figure in any substantial way in this study, it demonstrates in clear and powerful ways how for Deleuze we should approach the question of 'ethics'. What Deleuze has to say in this work on the question of ethics does resonate in crucial ways with his Bergsonism. We should perhaps note that Deleuze's reading of Spinoza is often inspired by his Bergsonism, so that, for example, we find in the 1968 text that the task of life is defined as one of learning to exist 'in duration' (Deleuze 1968:289; 1992:310). And indeed, for Bergson, such a task was supremely ethical in putting us back in contact with the 'eternity of life' that is neither the eternity of immutability nor the eternity of immortality (Bergson 1965:156–7; compare Deleuze 1968:292; 1992:314). In addition, and as Merleau-Ponty astutely noted, Bergson's philosophy is a philosophy of pure 'expression' (Merleau-Ponty 1988:28).

This is *not* to say that Spinoza and Bergson's thinking on duration are one and the same since clearly they are not. Duration (*duratio* not *tempus*) belongs for Spinoza to a quite specific realm of existence, namely, the domain of finite modes where it refers to the individuality of distinct things (Deleuze takes the line that there is no 'instantaneity of essence' in Spinoza and that the 'continual variations of existence' that characterize a mode's

power of acting and its constant passages to greater and lesser perfections are only comprehensible in terms of duration; see Deleuze 1981:57; 1988:38–9). *Duratio* is to be understood modally rather than temporally; unlike infinite substance, a thing's existence does not follow from its essence but is dependent on external causalities for its endurance (see Yovel 1992:110).¹ Bergson's conception of duration is radically different in that it refers not to the realm of distinct entities and things but rather to the virtual realm of creative processes and becomings. Some commentators, including Deleuze at one point in his 'Bergsonism' of 1966, will often casually read Bergson's duration as giving expression to a kind of *natura naturans*. Bergson, however, separates his thinking from Spinoza's conception of substance on this very issue, arguing that Spinoza's causalism and determinism are unable to allow a genuinely inventive character to be given to duration. I shall have something more to say on this in Chapter 1.

In his readings of both Bergson and Spinoza, Deleuze focuses the ethical question on bodies conceived as existing immanently on a plane of nature and constituted by an originary technics and artifice. This means for him that what a body can do is never something fixed and determined but is always implicated in a 'creative evolution'. His 'Bergsonism' follows Bergson's conception of evolution in conceiving life in terms of the play between two creative dimensions, that of nonorganic life and that of the organism. One of the major insights of Bergson's *Creative Evolution* is that the unity of nature consists of a complicated unfolding of an originary impulsion in which the creative energies of life are canalized in specific bodies (organisms and species). However, species are never the *telos* of evolution in Bergson's view, since the process of a creative evolution is 'without end' and its creativity implies ceaseless invention and re-invention. The ethical question addressed to bodies is one of gaining self-knowledge concerning their dynamic and 'evolutionary' conditions of existence in order to cultivate both joyful passions and enhanced relations with other bodies. This ethological dimension of ethics, which concerns the relations between affective bodies, operates both within the order of nature and also informs the ethical becoming of human bodies, to the extent that the later Deleuze explores the possibility of a becoming-animal and becoming-molecular of the human. As we shall see, this move is not unproblematic and without tremendous difficulties. In this Introduction, however, I want to restrict my attention to the earlier text on Spinoza of 1968 since in this work it is clear for Deleuze that the task of philosophy is not one of constructing a philosophy of nature, but rather one of showing how the acquisition of a 'superior' human nature is possible from a comprehension of the nature of bodies.

In *Expressionism in Philosophy* Deleuze follows Spinoza in conceiving bodies as 'finite modes' that are expressions of an infinite substance (in later work Deleuze will insist that both substance and modes presuppose a plane

of immanence). The ‘great ethical question’ concerns whether it is possible for these bodies to attain ‘active affections’, and, if so, how (Deleuze 1968:199; 1992:219). Later in the text another dimension gets added to the ethical question which concerns how a maximum of joyful passions is to be achieved (ibid.: 225; 246).² One of the most important moves Deleuze locates in Spinoza’s *Ethics* is that of reconciling a physical view of bodies with an ethical one. However, this requires a philosophy that is able to demonstrate that bodies are not fixed (they have no ‘essence’ other than that of a becoming) in terms of their exercise of active and passive affections. This is not to claim that there are no limits in nature to what bodies can achieve; rather, the claim is that these limits are ‘general’ ones always subject to a creative evolution and involution. Hence the ‘ethical’ character of Spinoza’s thinking derives from his emphasis on the fact that we do not know what a body is capable of and what affections it can attain (what bodies can do always necessarily exceeds our knowledge at any given time, just as the capacities of thought always exceed the nature of consciousness).³ The implications of this insight for thinking are twofold: that of acquiring a higher human nature through an adequate comprehension of nature, and that of raising a physics of nature to a higher plane (a *meta*-physics) by showing that bodies are capable of a potentially infinite becoming and modulation within finite limits. For Spinoza no one can tell what the body is capable of from simply observing the laws of nature (Spinoza 1955: Part III, Proposition II, Note). If the question of what bodies can become is an open question, there can only be empirical grounds, not logical ones, for closing it (Hampshire 1981:133). Deleuze’s reading of Spinoza on this issue is novel in that he does not simply restrict it to a matter of our ignorance, a deficiency in our knowledge, but also views it in terms of the experimental and open-ended character of a future affective ‘evolution’.

In all the major modern thinkers who most inspire him, such as Spinoza, Nietzsche, and Bergson, Deleuze finds a similar stress and value placed on *experimentation*. Contra Leibniz’s criticism, he seeks to show in the case of Spinoza that an ethics does not result in the impotence of the creatures who found themselves in nature conceived as an immanent and infinite substance. Deleuze is insistent that through the modes Spinoza shows how individuals participate in ‘God’s power’ as singular parts (intensive quantities and irreducible degrees) of a divine power. In fact, he shows how both Leibniz and Spinoza produce a new naturalism that resists the mechanistic view of the universe promulgated by the great modern Descartes which only succeeds in devaluing the autonomy of nature by depriving it of any virtuality or potentiality as an immanent power. Both Leibniz and Spinoza manage to do this, Deleuze contends, without falling back into a pagan vision of the world which would simply produce a new and blind idolatry of nature (1968:207–8; 1992:227–8). It is important to appreciate, Deleuze notes, that nature is not constructed for our convenience, it is full of cruelty

and lack of sympathy for our peculiar being and evolves without regard for our particular habitat in it. There are few deaths in nature that are not brutal, violent, and fortuitous. The task, however, is to comprehend this and to bestow upon such deaths a new meaning, which is the 'meaning' of a praxis that can only arise out of creating, and experimenting with, new possibilities of existence. In addition, Deleuze will claim, in his readings of Spinoza, Nietzsche, and Bergson, that there is never any finality in nature or evolution, but only a musical expression of nature involving explication, implication, and complication. Evolution is thus to be thought as a great 'fold' and we are to become those that we are: musicians of nature and artists of our own cultivation.

Fundamental paradoxes necessarily inform Deleuze's attempt to derive an 'ethics' from evolution and ethology. Whether these paradoxes are such that they imperil the coherence and sustainability of his project, we shall have chance to examine and is perhaps, ultimately, a judgement to be deferred to the practices, wise or unwise, of the reader. First it is necessary to discover and invent what work can be done with it, and attempt to determine what insights into a philosophy of life can be yielded from it in terms of its ethical and political dimensions. It is never for Deleuze a question of sustaining a parochial perspective on life, or of limiting the forces of creative evolution to the concerns of the human, narrowly defined and understood. It is necessary to combat two things: the blindness of science which would give us matter without ethics, and the blindness of faith which would give us an ethics without matter. Deleuze finds the moral view of the world especially pernicious since it is a view that enchains the body to an unknown soul and prohibits the becoming of the body (it is anti-pedagogic in this respect if we take culture and discipline to involve a true *paideia*). The moral view of the world condemns us to infinite sadness in this life. Deleuze stresses that nobody is born ethical, just as nobody is born a citizen, religious, sinful, or free and reasonable. We are neither emancipated nor condemned from the start. It is for this reason that the obligation of philosophy consists, above all perhaps, in unfolding an experimental and ethical pedagogy, one that requires a 'slow, empirical education' (1968:244; 1992:265). Furthermore, 'The state of reason is one with the formation of a higher kind of body and a higher kind of soul.... A reasonable being may...in its way, reproduce and express the effort of Nature as a whole' (ibid.: 243, 264–5). The practical task of philosophy is a quite simple one: namely, that of freeing individuals and freeing knowledge from the claims of superstition. It is superstitious beliefs, which are by no means peculiar to religion but also characterize science and philosophy itself, which prevent our gaining access to a wholly 'positive' nature and which threaten all human becoming.

'Ethics', therefore, is an intrinsic part of Deleuze's philosophical project and it plays a role in each one of his attempts to articulate a philosophy of nature and to think 'beyond' the human condition. Ethical life arises for

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Deleuze out of the context of a naturalism, a particular philosophical conception of the world that requires the cultivation, as we shall see, of a 'superior empiricism'. This conception has recourse to transcendental and critical philosophy to the extent that it is able more imaginatively and sublimely to open up the territory of this naturalism and empiricism. Deleuze himself stresses that the *biological* significance of this new conception is not unimportant. However, when 'taken as a model' its chief significance is declared to be '*juridical and ethical*' (ibid.: 236; 257) (my emphasis). The difficult challenge that this ethics provides, which will be unfolded in this study gradually and carefully, is to think 'ethics' both transhumanly and germinally, that is, in terms of the 'living beyond' and the 'living on'.

IV

The question of Being as univocal cannot be avoided in any appreciation of, or encounter with, Deleuze, and I shall draw this Introduction to a close by making some pre-emptive remarks about it. The notion of univocal Being informs the final climax of *Difference and Repetition* and it continues to inform the crucial matters at stake in his joint work with Guattari, notably *A Thousand Plateaus* (the construal of nature as a plane of consistency presupposes Being as univocal). The role played by univocal Being has now assumed a crucial importance in the interpretation of his work. Alain Badiou's *La clameur de l'Etre*—the title of which is taken from a section in *Difference and Repetition* that speaks of the 'single voice' on Being running from Parmenides to Heidegger and is also the note on which the book ends with Deleuze writing of a 'single clamour of Being for all being'—provides a great deal of insight into Deleuze in relation to Heidegger on the question of Being, and in relation to the issue of Platonism, though his book suffers from neglecting a crucial work like *A Thousand Plateaus* (Badiou 1997:31–49, especially 34–8, 42–7). Badiou does show, however, that the thought of univocity in Deleuze is not a tautological one (the One is one) and that it is entirely compatible with multiple and infinite forms of Being (39). But if the univocity of Being does not refer to a One, to a being as such, what does it speak of?

Deleuze's engagement with the history of philosophy revolves around his adherence to this conception of univocal Being (Being can be said in a single sense 'of' all its individuating differences and intrinsic modalities). What is its precise character? This can best be approached in terms of his readings of Spinoza and Nietzsche, both of whom are drawn upon in *Difference and Repetition* to supplement the doctrine of Duns Scotus (1987:4ff.). On Deleuze's reading, Spinoza's substance cannot be thought independent of its expression in attributes which are always dynamic. The immanent expression of substance is neither an emanation nor a creation. In the entry on

‘Attribute’ in *Spinoza: Practical Philosophy* (1970, revised 1981/trans. 1988), Deleuze writes: ‘And *immanence* signifies first of all the *univocity of the attributes*: the same attributes are affirmed of the substance they compose and of the modes they contain’. In the entry on ‘Mode’ this is clarified as follows: ‘there is a univocity of Being (attributes), although that which is (of which Being is affirmed) is not at all the same (substance or modes)’. In the entry on substance Deleuze makes it clear that the question of the ‘one’ substance is, if properly thought through, inadequate for comprehending what is in play in Spinoza. The problem with the ‘One’ is that it refers to a numerical distinction that is never ‘real’, while a ‘real’ distinction is never numerical. Deleuze prefers to speak, therefore, of formally distinct attributes that are affirmed of a ‘singular substance’ (as Michael Hardt notes: because number involves limitation and requires an external cause it can never have the character of substance, 1993:60). In Spinoza’s thinking substance is presented as though it were independent of the modes and the modes as fully dependent on substance. In order to overcome any possible dichotomy here, Deleuze suggests that substance must be said only of the modes. In short, Deleuze’s radical and complex move is to argue that being can only be attributed to becoming, identity can only be said of difference, and the one can only speak of the multiple. This is what he means when he declares that Being can be expressed in a single and same sense when it said ‘of’ all its individuating differences (a colour, for example, enjoys various intensities but it remains the same colour).

The individuating factors at play in the becoming of Being are not for Deleuze simply individuals constituted in experience, but are that which acts in them as a transcendental principle, such as intrinsic modalities of being that pass from one individual to another and which circulate and communicate beneath matters and forms. The factors of individuation, conceived in Kantian and transcendental terms, are what constitute individuals as beings of time and also what dissolve and destroy them in time. Individuation not only differs in kind from the individuals it constitutes and dissolves, it is also *presupposed* by matters, forms, and extensions, and *precedes* differences that are generic, specific, and individual. It is this ‘Copernican Revolution’, consisting of giving difference its own concept, that Deleuze identifies with Nietzsche’s doctrine of eternal return.

A classical source for the treatment of the problem of the ‘copy’ is Plato’s *Timaeus*, where the concern is with how ‘the beginning of everything’ in its copied or mimetic form has to be grasped as being in accordance with nature grasped as that which is lasting and unalterable (Plato 1961:1162ff.). Plato’s discussion of the eternal, and how it can be faithfully copied, takes place, of course, in the context of his treatment of time as the ‘moving image of eternity’. Both *Difference and Repetition* and *The Logic of Sense* are devoted, in part, to effecting an ‘overturning’ or reversal of Platonism on these points, showing how there is a founding ‘philosophical decision’ in Plato against the