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In Pursuit of the Biological Imperative

An Intergenerational Approach to Biological Justice

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This paper analyses the relationships between ethics and biology – particularly within the context of the Earth’s degrading biosphere. We assess the manner in which humans have valued, and should value past and future human generations – from rational perspectives and as consequence of natural justice. We argue that life on Earth is more than likely unique within the universe, and that as a consequence of this, there is a duty for humans to exercise greater environmental stewardship. On the basis of this, the moral obligations that we have to future generations and ultimately future environments are debated, then confirmed. We conclude with a new biological imperative, in which it is asserted that in nature, justice is inter-temporal and must embrace all life found in the Earth’s biosphere.

Key words: environmental ethics; environmental values; ecosystem collapse; environmental justice; biological imperative.

Introduction

Society ... becomes a partnership not only between those who are living, but between those who are living, those who are dead and those who are to be born.

Edmund Burke, 1790/2005: 54

Today when biologists contemplate morality, they are as likely as not to believe that human morality or ethical thinking either needs to be, or can be *explained* biologically. It is the kind of sentiment on offer in middlebrow journals like *The Economist* when it asked:

Whence morality? That is a question which has troubled philosophers since their subject was invented. Two and a half millennia of debate have, however,

failed to produce a satisfactory answer. So now it is time for someone else to have a go ... Perhaps [biologists] can eventually do what philosophers have never managed, and explain moral behavior in an intellectually satisfying way.

(*The Economist*, 21st Feb. 2008)

Contemporary adherents of socio-biology like Jasper Ridley, Richard Dawkins and Sam Harris take something E.O. Wilson said over three decades ago seriously, when he suggested that *the time has come for ethics to be removed temporarily from the hands of the philosophers and biologized* (Wilson 1975: 562). As Hall (2010) notes, this has merit as there may well be important discoveries to be made or insights gained that help to explain why humans engage in

ethical conduct. Yet the reference by *The Economist* to ‘explaining moral behaviour’ points to the way the modern socio-biological frame consistently muddles the questions that matter.

The contemporary pursuit by socio-biologists of an explanation for why humans have moral ideas is essentially irrelevant to various western ethical traditions like ‘Judaeo-Christianity’, virtue ethics, deontic ethics, and utilitarianism. Occasionally, members of the various western ethical traditions have asked where does human ethical practice ‘come from’. Over several thousand years various explanations have been offered ranging from ‘God’, through communal values (e.g., Hegel’s *sittlichkeit*), to Bentham’s account of rational self-interest. Yet we need to acknowledge how advocates for the variety of rival versions of moral inquiry from Socrates, Plato and Aristotle through St Thomas Aquinas, Spinoza, Bentham, Kant, Mill or Nussbaum have all engaged in a project designed to tease out the core elements of practical reasoning. Practical reasoning takes as its central question the core question of human practice: *What ought I (or we) do?* The archive of the western ethical traditions offers us a treasure trove of ideas, styles of reasoning and guides to good conduct.

That exercise is far removed from the modern socio-biologist project. This is exemplified when Harris *et al.* (2009) argue that the use of fMRI machines identifies the material substrata of ethical decision-making processes. Harris (2010) goes further, claiming that evolutionary neuro-science will actually start to guide our practical choices and that *science can determine human values*. This is a reductionist and narrowly ‘rationalistic’ exercise designed to show how human affairs in general, and ethical thinking in particular, is essentially

the product of objectively observable, measurable and predictable evolutionary and/or neurological structures or processes. Tallis (2011) demonstrates how this makes fundamental mistakes or relies on quite basic logical fallacies. The net effect of this neuro-scientific project is to convert rational inquiry into what we ought to do, into a deterministic and reductionist account of ethical thought represented as a consequence of physiological processes. Just one of the fallacies being perpetrated is illustrated by the analogical proposition that we somehow ‘explain’ the thought or beauty of a Shakespearean sonnet we are reading on a laptop, only when we can identify ‘its’ presence in a sequence of electrical pulses in the microprocessor or else in the circuits of the microprocessor. None of the possible explanatory relationships (of causality, correlation or identity) are at play here; just plain old muddled thinking (Tallis, 2011).

Yet this does not mean that there is no connection between ethics and biology. Rather we just need to get that relationship right. In effect rather than biologicize ethics, *we need to ensure that biological science understands its ethical obligations to life*. We argue here that the current relationship between biology and ethics needs to be redefined, and that biologists need to be both more thoughtful and clearer about their moral ideas about the value of life in all of its forms.

This paper has been written essentially for an audience of practicing biologists or life scientists, mindful of the continued salience of what C.P. Snow (1959) called the ‘two cultures problem’. In it we engage in a translation exercise to suggest why this large community of scientists might want to more consciously draw on a tradition of environmental ethics that has been evolving since the late 1920s (Jahr, 1927). In

particular it spells out why an ethical framework based on a conception of the intrinsic value of life leads rationally to certain ethical obligations that constitute an ethical biology. We then make the case for an intergenerational approach to securing the future of the biosphere. We start by first clarifying the nature of the ethical.

What is ethical?

In a striking intervention Emmanuel Levinas derives the primacy of ethics from the experience of the encounter with the Other. Levinas concludes that it is only in the presence of another person [the Other] that the horizons of our ethical obligations become clear (Levinas, 1961). He is worried about the rationality of any enquiry, in this case, into ethical matters and noted that everyone will readily agree that it is of the highest importance to know whether we are duped or not by morality (Levinas, 1961). Our sense of self or our subjectivity, Levinas argued, is primordially ethical, not theoretical: that is to say, our responsibility for the other is not a derivative feature of our subjectivity, but instead, constitutes our sense of being a particular kind of person in the world by giving it a meaningful direction and orientation. Levinas' account of an 'ethics as first philosophy' means that the traditional philosophical pursuit of knowledge is secondary to a basic ethical duty to the other. For Levinas, the irreducible relation, the epiphany of the encounter with another is a privileged phenomenon: The Other precisely reveals himself in his alterity [otherness] not in a shock negating the I, but as the primordial phenomenon of gentleness. Levinas clearly intends that 'the Other' he has in mind applies to other humans. However, do other life forms constitute such an Other?

Here we confront the long-standing anthropocentric or human-centered

dispositions of western ethical thought. Our ethical perspectives either assign intrinsic value to human beings alone (which is a robust form of anthropocentrism) or else insist that humans have more important needs than other life forms, such that promoting human interests or well-being at the expense of nonhuman things is almost always justified – which is a weak anthropocentrism. Further, where the older western traditions have thought about ethical issues affecting non-human life it tended to value things simply as means to further some other ends, rather than to value things as ends in themselves. Conventional western ethical thinkers have had trouble saying what is wrong with the cruel treatment of nonhuman animals or why, except to the extent that such treatment may lead to bad consequences for human beings, which is to say there is a pervasive instrumentalism at work: Kant (1963) suggests that by being persistently cruel towards a dog might encourage development of a character which would be desensitized to cruelty towards humans. From this standpoint, cruelty towards nonhuman animals would be instrumentally, rather than intrinsically, wrong.

It is a truism that biology is the study (or *logia*- *λογία*) of life (*bios* – *βίο*). To make the case for an ethical biology is to understand that one core question about the study of life is this: what is the value of life – in all of its dimensions and forms?

In light of the current interest in finding intelligent extra-terrestrial life, Paul Davies (2011) makes the point that for all intents and purposes, the nature of life on our planet is unique. Using a Bayesian probabilistic analytic frame, Spiegel and Turner (2011:1) sensibly conclude given the absolute absence of evidence of life anywhere else in the universe that there is an arbitrarily low

intrinsic probability of abiogenesis for plausible uninformative priors. That is, given the complete absence of any evidence to the contrary, the probability that there is another planet 'out there' with intelligent life on it is not much greater than 0. The implication is simple yet striking... the splendid variety of life on Earth is both unique and of incalculable value. The case for an ethical biology rests on this proposition.

Yet more is needed than this blank assertion. We need to consider the project of rationality itself and how a conception of justice might become central to modern biology.

What is rational?

The idea of rational enquiry has a long and complicated history. Scientists working in life and physical sciences may be inclined to define the scientific method as a progressive growth towards truth. This idea was given credence by Popper's (1974) insistence that falsificationism was fundamental to good science. Yet, the basis of this faith has been eroded in the second half of the twentieth century, when societies ceased to host any significant theoretical or moral consensus about the criteria available to assess either factual-truth or practical-ethical claims. Not surprisingly, Habermas (1996: 97) recognises a present-day 'post-metaphysical crisis' where justification of practices 'simply by calling attention to the contexts in which they were handed down' is unacceptable. This is evidenced in controversy about climate change, genetics and the persistent creationist vs. evolutionist debate. As Regh (in Habermas 1996: 8) notes, this is the problem of dealing with a social reality on the one side and a claim of reason (which is sometimes belied by the reality) on the other.

As sanctioned by MacIntyre (1990) rationality is a project most likely to flourish when people enjoy the conditions of freedom of enquiry that define a public space such as a university.

When it is demanded of a university community that it justify itself by specifying what its peculiar and essential function is, that function which if it were not to exist, no other institution could discharge, the response of that community ought to be that universities are places where conceptions of, and standards of rational justification are elaborated, put to work in the detailed practices of enquiry, and themselves rationally evaluated, so that only from a university can the wider society learn how to conduct its own debates, theoretical or practical in a rationally defensible way.

When this constant process of renewal of the capacity for thoughtfulness is nourished and sustained, then those who have access to the university can engage in those distinctive forms of reflexive and deliberative practices that define a democracy whose members engage in and value active citizenship. This formulation while seemingly abstract matters deeply. It may facilitate finding answers to those perpetual questions that affect our capacity to live well (or not so well). For this helps us to determine whether a course of action is truly a good choice:

... distinctions between the real and imaginary, the true and the untrue, the good and the bad. Only when such distinctions are deeply embedded in the processes by which individual and social identities are formed is it then possible to deal with the 'real' world as an array of particular social facts and institutions such as the state or the economy.

Hansen (1993)

Habermas (1996) argues that rationality involves a process of discursive deliberation where ethical claims that might inform normative conduct can be established to arrive at a rational consensus. In determining the facts, Habermas has had to acknowledge the reality of a world that exists and about which truth claims need to be made successfully, while accepting as Kant did, that we can never have direct access to the world without linguistic mediation.

As to the nature of the rationality involved, Dahlberg (2000: 5) says it is possible to formally specify this as ‘communicative action’, drawing on a formal method in the Kantian sense of attempting to reconstruct the conditions of possibility of communicative interaction. ‘Understanding’ (verstandigung) is central to communicative action’. At its most basic level, it simply means mutual comprehension, i.e. that people are using the same words with the same meanings so as to achieve a degree of shared meaning and mutual comprehension. At its most elevated, ‘understanding’ means a shared consensus about the universal validity of claims people make to speak the truth or to know the good. This accomplishment requires that participants need to believe that a rationally motivated agreement could in principle be achieved *...provided e.g. that the argumentation could be conducted openly enough and continued long enough* (Habermas, 1984: 42).

Communicative action firstly requires that everyone potentially affected by an activity be taken into account (Fultner, 2003). Only then can reciprocal testing of problematic validity claims be made. Secondly communicative action presupposes a formal and discursive equality among participants, implying that all parties be given equal

opportunity to make claims and question any assertion. Thirdly this entails social equality, a lack of which can affect the capacity of people to fully participate (Habermas, 1996: 308).

Communicative action also requires certain attitudes. So reflexivity is also a condition, for people must be willing to change their minds as they critically examine their own prejudices and beliefs. Finally Habermas (1996: 34) requires that participants in the ideal-speech setting will bring good will to bear – an assumption of honesty, impartiality and respectful listening – to seek to understand rather than provoke disagreement.

These protocols point to ways of ensuring that scientific and ethical discourse might be made to work. We also need to consider how an ethical biology might make a conception of justice central to its practices. If we accept that we need to treat the variety of life in all its forms on our planet as both unique and as possessing inestimable and incalculable value, then we may also accept that justice is at stake in the relationship between the biosphere and ourselves. Though there are many relevant conceptions of justice, one that deserves attention and seems especially relevant to our biosphere is intergenerational justice. When deeply contemplating justice, we confront the need to find a point of ‘reflective equilibrium’ between description and evaluation Finnis (1980). This requires a descriptive-evaluative anthropology of the goods which inform the good life to be conjoined with a capacity to understand what is really good for humans and what is necessitated by practical reasonableness, i.e. we need also to have clarity about the nature of justice.

What is justice?

Perhaps justice is best understood by asking the question: What do we owe to each other? (Scanlon 2000) At stake here are two issues: who is the 'we'? And what does the idea that we owe something imply? In defining 'we' it may be asserted that as well as the living, the 'we' includes those who are either dead or who are yet to be born. However there is a deep-seated prejudice in favour of excluding both these (Feinberg, 1980; Thompson, 2009). Irrespective of this, justice is inter-temporal – we live in time – and this is embodied in our legislative systems, for justice and lawfulness must extend across time, with the relevant principles, rules and practices moving from the past and into the future. This assumes that there is a temporal intentionality with the operating principles of justice that will extend into the indefinite future. The implications of this, especially in the British System, are simple: legal rights are routinely attributed to persons not yet born.

In light of this there is the presumption that until it is amended, any given law that regulates the conduct of persons alive and future, assumes that the latter have a variety of rights and obligations. Similarly the vast body of common law practice and principles is assumed to codify rules and principles like habeas corpus, the use of juries in various kinds of courts and cases, or the rules about admissible evidence with application out into the future. Subject to the proviso that laws may be amended from time to time, the premise operating is that these basic legal statements are designed and intended to operate into the future with the clear expectation that rights enunciated in a constitution drafted in say 1900, will enunciate those rights for generations yet to be born. Some, like the Constitution of the United States of America (1787), specifically state that the document was

ratified to secure the blessings of liberty to ourselves and to posterity. Thus, if legal systems have no trouble in conceiving of the persons not yet born enjoying the benefits of current legislation, it is not clear why some philosophers would override this.

Our justice system enshrines obligations owed to those who have died, those who are alive, and those yet to be born because the practice of justice as temporarily transformative. However, the presence or absence of persons still matters because it affects what we can legitimately expect as we extend our regard for moral obligations, rights and interests beyond the present and look backwards and forwards. At stake here are the choices open to us about the best practice and the goodness of our thinking about why we have chosen this or that kind of justice. Choosing in this case between the kinds of justice we want to enact or practice requires uncommon expertise.

Intergenerational justice: obligations to the not yet born

John Rawls' Theory of Justice marked the proper initiation of obligations to future generations as a topic of salient philosophical interest. More recently, what Barry (1977:204) asks reinforces this intergenerational quality of justice:

... can it be said that we should be behaving unjustly if we neglected their interests in deciding how much to use up finite resources, how far to damage the environment in ways that are irreversible or at any rate extremely expensive to reverse, and how much to invest in capital goods or research and development of new technologies (e.g. into non-exhaustible energy sources)?

Intergenerational justice demands that when opportunities are denied to future

generations because of depletion or other irreversible damage to the environment, others should be created, even if at some cost. There are nonetheless, extraordinary difficulties with this idea of intergenerational justice. Laslett & Fishkin (1992) whilst acknowledging that a good deal of political theory has been produced in the past (and the present) within the grossly simplifying assumptions of a timeless world, conclude that:

Principles of justice, equality and utility that yield reasonable conclusions for fixed population sizes over short periods begin to produce bizarre results once cohort sizes or total populations sizes or both vary over time. The implicit contractual relations among generations fail for the same reason.
(Laslett & Fishkin, 1992: 6)

There is however a very real problem of knowing precisely whose interests or rights we wish to promote among future generations. That is, how can you attribute rights to people not yet born and who do not exist? In light of this, Beckerman (2004) argues that any sensible conception of rights or justice cannot be applied to persons not yet born. His argument rests on the premise that rights are a property, like being green or owning something. The flaw in this is the fallacy of misplaced concreteness (or reification), which involves treating an abstraction, in this case rights, as if they are a real physical entity or a real event. However:

... if that were the case, then neither human idiots nor wee babies would have any legal rights at all. Yet it is manifest that both of these classes of intellectual incompetents have legal rights recognized and easily enforced by the courts. Children and idiots start legal proceedings, not on their own

direct initiative, but rather through the actions of proxies or attorneys who are empowered to speak in their names.
Fienberg (1980: 154)

If there is no problem here why should there be in the case where a proxy makes a claim on behalf of people who are not yet born?

But there are issues that this objection raises. For we cannot hope to fully comprehend the cultural values of future generations, although it is highly likely that they will value 'health, longevity, liberty, opportunity and a sustainable natural environment'. Thus the ontic fact is that humans have aims, desires and beliefs, many of which which transcend the present confers upon them their right bearing status (Feinberg 1980).

This is evidenced by a propensity to make a will, stating what is to happen to our body and our property after our death; and the law ensures that posthumous status does not abolish our interests or our rights upon death. Any action we anticipate arises because there is both a legal obligation and a moral obligation.

Finally, when considering obligations to the unborn we should note that contractarians since Rawls (1971: 126-30) have drawn on what Rawls called Hume's 'circumstances of justice' to deny that we have any. Thus, as we have no obligations to such people, they cannot be parties to our contract. This is because there is no possibility of mutually advantageous interaction between those of us alive and those who will be born in the next millennium. While it can be said that the quality of life of future generations depends to a very large extent on the decisions we take, our quality of life cannot be affected at all by the decisions taken by people born in 2050. This objection argues while we can do a great deal for 'posterity',

'posterity' cannot do anything to (or for) us. This was a problem for Rawls who rested his contractualism on the pursuit of self-interest behind the 'veil of ignorance'.

However, it should be noted that Scanlon's (2000) contractualism bypasses this by assuming that all of us are moral agents motivated by a desire to justify ourselves to others. There is no reason why those others need to be people who are currently alive, or perhaps even if they are humans. When deciding how to act, there is no problem in asking whether people born in 2050 will be affected by my actions by rejecting the principle I am relying on to permit those actions. For example, I may want to construct a factory that will release low-level radiation and it seems entirely reasonable to ask whether those who will suffer as a result in the 2050s might reasonably object to my behaviour. Because it works with the possibility of reasonable rejection - rather than actual bargaining - Scanlon's contractualism easily accommodates obligations to future and as yet unborn people.

This brings us full circle. We conclude by defining a moral imperative that places humans a part of (rather than apart from) nature, for it is evident that we have obligations to future generations, and it follows that we have an obligation to not irreversibly compromise their environment (Buckeridge, 2012). Thus the consideration to be adopted in any working model for resource management must be that *in nature, justice is inter-temporal and must embrace all life found in the Earth's biosphere.*

Acknowledgement of this is the biological imperative.

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