



THE CENTRALITY OF PHILOSOPHICAL ANTHROPOLOGY TO (A FUTURE) ENVIRONMENTAL ETHICS

LA CENTRALIDAD DE LA ANTROPOLOGÍA FILOSÓFICA PARA UNA (FUTURA) ÉTICA AMBIENTAL

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ABSTRACT:

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While environmental ethics has successfully established itself in philosophy, as presently conceived it is still largely irrelevant to grappling the global ecological crisis because, as Alasdair MacIntyre has argued, ethical philosophy itself is in grave disorder. MacIntyre's historically oriented recovery of virtue ethics is defended, but it is argued that even MacIntyre was too constrained by received assumptions to overcome this disorder. As he himself realized, his ideas need to be integrated and defended through philosophical anthropology. However, it is suggested that current defenders of philosophical anthropology have not done it justice. To appreciate its importance it is necessary accept that we are cultural beings in which the core of culture is the conception of what are humans. This is presupposed not only in thought but in social practices and forms of life. This was understood by Aristotle, but modernity has been straightjacketed by the Seventeenth Century scientific revolution and Hobbes' philosophical anthropology, identifying knowledge and with techno-science and eliminating any place for questioning this conception of humans. The only conception of humanity that could successfully challenge and replace Hobbes' philosophical anthropology, it is argued, is Hegel's philosophical anthropology reformulated and developed on naturalistic foundations. This involves subordinating science to a reconceived humanities with a fundamentally different role accorded to ethics, placing it at the center of social life, politics and economics and at the centre of the struggle to transform culture and society to create an ecologically sustainable civilization.

RESUMEN:

Palabras clave:

Ética ambiental; Antropología filosófica; Alasdair MacIntyre; Hegel; Civilización ecológica

Mientras que la ética ambiental ha consolidado su presencia en la filosofía, tal como está concebida todavía es en gran medida irrelevante para lidiar la crisis ecológica global, porque, como argumentó Alasdair MacIntyre, la ética en sí está en grave desorden. Se defiende la recuperación de orientación histórica de MacIntyre de ética de la virtud, pero al mismo tiempo se argumenta que incluso MacIntyre fue demasiado limitado para conjeturar de superar este trastorno. Como él mismo cuenta, sus ideas deben ser integradas y defendidas a través de la antropología filosófica. Sin embargo, se sostiene que los defensores actuales de la antropología filosófica no le han todavía hecho justicia. Para apreciar su importancia, es

necesario aceptar que somos seres culturales, y el núcleo de la cultura es la concepción que tenemos de la humanidad. Esto se presupone no sólo en el pensamiento, sino también en las prácticas sociales y en las formas de vida. Esto fue entendido por Aristóteles, pero la modernidad ha sido “encarcelada” por la revolución científica del siglo XVII y por la antropología filosófica de Hobbes, por la identificación del conocimiento con la tecnociencia y por la eliminación de cualquier lugar para cuestionar esta concepción de ser humano. Se sostiene que la única concepción de humanidad que podría desafiar y reemplazar la antropología filosófica de Hobbes con éxito es la antropología filosófica de Hegel, reformulada y desarrollada sobre bases naturalistas. Esto implica subordinar la ciencia a una nueva concepción de las humanidades, con un papel fundamentalmente diferente otorgado a la ética, colocándola en el centro de la vida social, política y económica y en el centro de la lucha por transformar la cultura y la sociedad, con el fin de crear una civilización ecológicamente sostenible.

Environmental ethics has established itself as a core area not only of ethics, but of philosophy. This is hardly surprising, given growing evidence of just how problematic is the relation between humanity and its environment, with a real possibility that global ecological destruction will destroy civilization. This indicated that there is something fundamentally amiss in the values and attitudes of people, especially in relation to the rest of nature, that have developed with modernity, the era in which different branches European civilization succeeded in dominating the globe either through conquest or through the impact of this culture. This led to the interrogation of current ethical philosophies and efforts to either revive suppressed traditions of ethical thought or efforts to develop fundamentally new ethical doctrines. The subsequent vitality generated by attempts to meet this challenge account for the prominent place ethical philosophy has now attained within academia.

However, for those seriously concerned to address the problematic state of civilization, this success appears hollow. It appears that ethical philosophy has had very little impact on how people live or how societies operate, or on the trajectory of civilization. Ulrich Beck, the German sociologist, has suggested that invoking ethics in our current situation is equivalent to attempting to stop an international jet airliner with a bicycle brake¹.

1 Beck, U. «From Industrial Society to Risk Society». In: *Cultural Theory and Cultural Change*, Featherstone, M. (ed.), Sage, London, 1992, 106.

Another eminent sociologist, Zygmunt Bauman, asks whether ethics can have any place in a world in which people are now socialized to be consumers rather than producers or responsible citizens, in which modernity has been “liquefied”, with all that was solid having melted into air². Life for most people in a world of disposable goods, disposable employees and disposable identities, is in perpetual flux, the only constant being their ever increasing levels of debt. People no longer form integrated communities of producers and strive for self-governance; they swarm, defining themselves through their shopping choices. As Bauman observed, “Swarms need not be burdened by the tools of survival; they assemble, disperse and gather again, from one occasion to another, each time guided by different, invariably shifting relevancies, and attracted by changing and moving targets [...]. In the case of feeling and thinking units, the comfort of flying in a swarm derives from having security in numbers: a belief that the direction of flight must have been properly chosen since an impressively large swarm is following it”³. In such a social order, people consume life. The economy of consumers is an economy that generates waste. As Bauman put it, “the consumerist economy thrives on the turnover of commodities, and is seen as booming when more money

2 Bauman, Z. *Does Ethics Have a Chance in a World of Consumers?*, Harvard University Press, Cambridge, 2009, Ch. 1.

3 Bauman, Z. *Consuming Life*, Polity Press, Cambridge, 2007, 76-77.

changes hands; and whenever money changes hands, some consumer products are travelling to the dump"⁴. Exponential environmental impact is a necessary corollary of consumer society.

If ethics has lost its place in culture and society, then not only environmental ethics but ethical philosophy itself has become irrelevant. In fact philosophy itself has been marginalized over the last century, taken seriously by those in positions of power only for its contribution to developing programming languages for the information technology industry. Psychology and economics have replaced ethics and political philosophy as the discourses defining how we should live and how we should organize society, and almost all its proponents are in the service of this new social order. Even science is losing its cognitive status, increasingly regarded as nothing but a means to develop technology and now requiring funding from business enterprises to keep going. Philosophers, sociologists, ecologists and climate scientists who do not conform to this mould and who are protesting this transformation are regarded as a nuisance to be removed from the public sphere by funding cuts to their research, education reform and consolidation of media ownership in the hands of global corporations aligned with the new global ruling class, the corporatocracy.

Can environmental ethics challenge this? In my view it has to if we are to avoid a disaster of unprecedented proportions, but doing so will require even more fundamental questioning of tradition ways of thinking, schemes of interpretation and conceptual frameworks than previously countenanced. For this to be even possible, it is necessary to challenge and overcome the fragmentation of thought, including the fragmentation of academia with its proliferation of disciplines, sub-disciplines and sub-sub-disciplines. Environmental ethics has been rendered impotent partly through being a sub-discipline of ethics, which in turn is a sub-discipline of philosophy largely separated from political philosophy, both of which, at least in Anglophone countries, are subordinated to the sub-disciplines of logic and epistemology. Most philosophers have abandoned the bold ambitions

of past philosophers to achieve a comprehensive understanding of the universe and the position within it of human beings, taking into account the whole range of human experience –scientific, social, ethical, aesthetic, and religious. Consequently, with a few notable exceptions, they have not been asking the most important questions, including questioning this fragmentation of thought and marginalization of philosophy.

1. MacIntyre and the revival of virtue ethics

There are philosophers who have questioned this fragmentation, and the marginal place of ethics in society, but even in these cases the destructive effect of this fragmentation is evident. The most eminent of these philosophers is Alasdair MacIntyre who, following Elizabeth Anscombe, has argued that the whole Enlightenment project of developing an ethical philosophy in the framework of modernity has failed. As he put it: "In the actual world which we inhabit the language of morality is in [...] grave disorder. [...] We possess indeed simulacra of morality, we continue to use many of the key expressions. But we have –very largely, if not entirely– lost our comprehension, both theoretical and practical, of morality"⁵.

Contractarian notions of rights and utilitarians confront one another without any basis for deciding between them or even achieving consensus on the basis of one of them, and Kantian ethics merely serves to provide bad reasons for what we accept on other grounds. MacIntyre argued that to recover from this situation we need to return to the past to rediscover what ethics was, and what it should be, reconstructing the history of ethics to reveal the failure of modern ethics, and the lost potential of the ethical doctrines they have displaced. This involved an attempt, not entirely unsuccessful, to refocus ethics on virtues in the tradition of Aristotle and Thomas Aquinas. A virtue, MacIntyre argued, "is an acquired human quality the possession or exercise of which tends to enable us to achieve those goods which are internal to practices and the lack of which effectively

4 Ibid, 36f.

5 MacIntyre, A. *After Virtue*, University of Notre Dame Press, Notre Dame, 2007, 1.

prevents us from achieving any such goods"⁶. He then set about clarifying the relationship between virtues and forms of life and the relationship between these.

However, although MacIntyre was unusual in his engagement with other disciplines and with the philosophy of science as well as ethics, and although he complained about the fragmentation of philosophy and the separation of ethics from political philosophy, he continued to work within the established academic subdiscipline of ethics. He acknowledged that "without an overriding conception of the *telos* of human life, conceived as a unity, our conception of certain individual virtues has to remain partial and incomplete"⁷. He argued that what is most important in any society is to maintain the conditions for developing self-knowledge and learning more about what is the good for humans. He concluded: "The virtues [...] are to be understood as those dispositions which will not only sustain practices and enable us to achieve the goods internal to practices, but which will also sustain us in the relevant kind of quest for the good, by enabling us to overcome the harms, dangers, temptations and distractions which we encounter, and which will furnish us with increasing self-knowledge and increasing knowledge of the good. The catalogue of the virtues will therefore include the virtues required to sustain the kind of households and the kind of political communities in which men and women can seek for the good together and the virtues necessary for philosophical enquiry about the character of the good"⁸.

What MacIntyre did not do until very late in his career, however, despite taking Aristotle and Aquinas as his points of departure, is attempt to show what is the *telos* of human life or show how it could be found, and consequently he could not show how philosophical enquiry could engender self-knowledge and knowledge of the good.

Why was MacIntyre unwilling to grapple with the problem of establishing the *telos* of human life? He claimed that the eclipse of virtue ethics was due to the rise of Protestantism and secularization of culture, de-

stroying traditions that had upheld the old view of ethics⁹. This is unconvincing. What really undermined the notion of a human *telos* and virtue ethics associated with it was the scientific revolution of the Seventeenth Century promulgating a conception of physical existence that eliminated any place for final causes. As far as ethics is concerned, it was Thomas Hobbes who spelt out with great clarity the implications of conceiving of humans as machines moved by appetites and aversions, and it clearly involved eliminating any other *telos* for humanity than the quest by individuals to satisfy appetites and avoid aversions, most importantly, death. It was in the philosophy of Hobbes that both the tradition of identifying rights through the notion of a social contract, and utilitarianism as a principle of government, had their roots, not in the Protestant Reformation. It was the philosophies of Descartes and Hobbes, watered down by Newton, Locke and Helvétius that formed the core of the mainstream Enlightenment.

While MacIntyre identified the problems of academic culture and was prepared to adopt an historical perspective on current thinking on ethics and to ask questions that other philosophers were not prepared to ask, he was still constrained by the disjointed nature of intellectual life. Even while complaining about the fragmentation of philosophy into isolated components, examining aspects of past philosophers while ignoring their systems of thought, and while also engaging with other disciplines such as sociology, he still worked within a university system that treated ethics as a self-contained area of study. As a consequence of this, he was unable to question at a sufficiently fundamental level the beliefs that are actually moving people in the modern world and challenging these beliefs accordingly, although in his later work he was attempting to overcome this deficiency. What more is required?

2. The turn to philosophical anthropology

In a late work, *Dependent Rational Animals: Why Human Beings Need the Virtues*, MacIntyre sought to bolster his earlier defence of traditions, along with the

6 Ibid, 109.

7 Ibid, 202.

8 Ibid, 220.

9 Ibid, 37ff.

narratives that maintain their coherence, as essential to rationality¹⁰. He did this by characterizing the nature of humans, effectively writing a work of philosophical anthropology. In my view, this did strengthen his claims in ethical philosophy, but philosophical anthropology itself needs justification.

Philosophical anthropology normally designates a specific research agenda that developed in Germany associated above all with the work of Max Scheler, Helmuth Plessner and Arnold Gehlen, although there were others. The leading historian of this movement, Joachim Fischer, defines philosophical anthropology in a very precise way, distinguishing it from existential and hermeneutic phenomenology, idealism, scientific naturalism and other philosophical movements, although acknowledging that there are differences between these thinkers¹¹. He argues that its defining feature is that in order to characterize the distinctive characteristics of humans, non-human life-forms in the contexts of their environments are first characterized, thereby rejecting Cartesian dualism and providing a bridge between physical existence and human consciousness. That is, philosophical anthropology is grounded in and always accompanied by philosophical biology.

Fischer does not properly acknowledge the influence of the zoologist Jacob von Uexküll on the philosophical biology of these philosophical anthropologists. Von Uexküll had been influenced by Kant and argued that to understand living organisms it is necessary to understand how their environments are construed by them as meaningful worlds to which they then respond.¹² In doing so he traced the development of the worlds of organisms from the most primitive forms in which perception and action are inseparable to various ways in which these have been differentiated and inner worlds developed in the process of mediating between perception and action worlds. It is in this way that he could

characterize the peculiar features of the worlds of humans that define their distinctive characteristics. Apart from philosophical anthropologists, von Uexküll had a major influence on the whole field of ethology, the study of the behavior of organisms in their natural conditions. Such ideas were developed by Konrad Lorenz among others, who then had a major influence on the entire field of ethology¹³. It is such work that Alasdair MacIntyre drew upon, most importantly, the study of dolphins, in developing and defending his conception of humans as dependent rational animals. There is thus no reason not to include MacIntyre as a philosophical anthropologist.

Other defenders of philosophical anthropology have included under its rubric far more than Fischer. Axel Honneth and Hans Joas in *Social Action and Human Nature* acknowledge the distinctiveness of Gehlen and Plessner, but argue that "the antecedents of philosophical anthropology extend [...] much further back in history. To give an account of them would be almost tantamount to portraying the entire, specifically German history of idealist and post-idealist philosophy"¹⁴. They begin with an examination of Feuerbach's anthropological materialism as a response to Hegel, and Marx's reworking of Feuerbach's ideas along with an examination of the reception of this anthropology by French Marxists before examining anthropology in more recent German philosophy. They argue that "[t]he true starting point of the German anthropological tradition [...] is the Romantic reaction to the ethics and philosophy of history of the Enlightenment, as represented by Kant"¹⁵. Herder is numbered among the crucial figures in this, and Feuerbach is interpreted as someone defending this reaction against Hegel's attempt to reabsorb such ideas into an Idealist philosophy of history. They argue the same impulse lay behind Schelling's late philosophy, Schopenhauer and Nietzsche, frequently invoked by later philosophical anthropologists who at the same time ignore Feuerbach and Marx. Plessner and Gehlen are exam-

10 MacIntyre, A. *Dependent Rational Animals: Why Human Beings Need the Virtues*, Open Court, Chicago, 1999.

11 See Fischer, J. «Exploring the Core Identity of Philosophical Anthropology through the Works of Max Scheler, Helmuth Plessner, and Arnold Gehlen». *Iris*. 2009: 153-170.

12 He makes this clear from the beginning in his major work: von Uexküll, J. *Theoretical Biology*, Kegan Paul, Trench, Truber & Co. Ltd., London, 1926, xvf.

13 See: Lorenz, K. *Behind the Mirror: The Search for a Natural History of Human Knowledge*, Methuen, London, 1977.

14 Honneth, A., Joas, H. *Social Action and Human Nature*, Cambridge University Press, Cambridge, 1988, 42.

15 Ibid.

ined in depth, but Gehlen is compared unfavourably to the work of the American philosopher George Herbert Mead and the Russian psychologist Vygotsky, who are also treated as philosophical anthropologists. The final part of the work examines more recent philosophers from this perspective, including Agnes Heller, Merleau-Ponty, Norbert Elias, Michel Foucault and Jürgen Habermas. In other words, these authors conceive and defend philosophical anthropology as a coherent tradition that developed in opposition to the Enlightenment, the target of MacIntyre's own work.

What Honneth and Joas leave out in their history of philosophical anthropology, among other things, is the place of philosophical biology, and more broadly natural philosophy in the development of philosophical anthropology, and the ambiguous role of Kant's philosophy in the development of all of these. Herder, who had been a student of Kant in his pre-critical phase, developed his anthropology as part of a general philosophy of nature, taking up and developing Kant's earlier philosophical ideas¹⁶. In particular, Herder argued in opposition to mainstream Enlightenment figures that humans are essentially cultural beings and, for the first time, he used the word 'cultures' in the plural. Kant had argued that in the cosmic conception of philosophy the question "What is Man?" is fundamental, underpinning the other major questions of philosophy: "What can I know?", "What ought I do?" and "What can I hope for?". As he put it, "all these [questions] might be reckoned under anthropology".¹⁷ It has been argued that Kant did not change his mind, and philosophical anthropology underpinned all his later work¹⁸. Kant was pre-eminently concerned to defend the reality of human freedom against the implications of Newtonian science, and his later philosophy developed in the *Critique of Pure Reason* and the *Critique of Practical Reason* continued this concern. However, Kant also developed a dynamist conception of physical existence and in his *Critique*

of Judgement developed a conception of life as self-forming or self-creating. While this last work is usually interpreted as an effort to bridge the gap between the first two critiques, Kant was not consistent in his views on this, and Schelling embraced these aspects of Kant's work, taking this argument much further. Schelling is usually characterized as an Idealist, but Schelling repudiated Idealism, claiming first that transcendental Idealism had to be complemented by a philosophy of nature, and then arguing that the philosophy of nature is more fundamental than transcendental Idealism. He argued for an evolutionary cosmology in which nature was reconceived as self-organizing. While pre-existing humans, it has engendered life and then humanity¹⁹. Schelling rejected Kant's claim to have established the concepts through which nature must be understood to be intelligible, and demanded that physics be reformulated to allow for the possibility of humanity having emerged within and from the physical world. Developing Kant's account of living organisms, Schelling anticipated von Uexküll's characterization of organisms as defining their environments as their worlds, and on this basis, influenced by Herder, developed his conception of humans as essentially historical beings²⁰. As John Zammito put it, Schelling's philosophy realized "the metaphysical potential [the *Critique of Judgement*] seemed to suggest" in which "[n]ature, art, and history [...] [could] be welded into a grander synthesis than Kant himself had dared".²¹ It was on this foundation that Schelling developed his social philosophy and ethics.

What this revised history of philosophy suggests is that, despite most histories of modern philosophy having been organized in terms of competing theories of knowledge, the Aristotelian organization of philosophy according to which theoretical philosophy consisting of first philosophy or metaphysics, defining the general character of all beings, on the basis of which the nature

16 This is shown in: Zammito, J. *Kant, Herder, and the Birth of Anthropology*, University of Chicago Press, Chicago, 2002.

17 Kant, I. *Introduction to Logic*, Barnes & Noble, New York, 2005, 17.

18 See: Van De Pitte, F. *Kant as Philosophical Anthropologist*, Martinus Nijhoff, The Hague, 1971.

19 See: Gare, A. «From Kant to Schelling: The Subject, the Object, and Life». In: *Objectivity after Kant: Its Meaning, its Limitations, its Fateful Omissions*, van de Vijver, G., Demarest, B. (eds.), Hildesheim/Zürich/New York, Georg Olms Verlag, 2013, 129-140.

20 See: Schelling, F. *First Outline of a Philosophy of Nature*, SUNY Press, New York, 2004, 112n.

21 Zammito, J. *The Genesis of Kant's Critique of Judgement*, University of Chicago Press, Chicago, 1992, 14.

of life, and then human life could be characterized, with practical philosophy concerned with ethics and politics and technical philosophy concerned with production, grounded in theoretical philosophy, was largely recovered. But this then raises the question of what is the relation between natural philosophy, philosophical biology and philosophical anthropology and the physical sciences, biology and the human sciences. And this brings into focus the assumption that the sciences are essentially objective and irrelevant to evaluations of what there is or could be and the subsequent devaluation of the humanities because they are concerned with values, which are only subjective. To examine this assumption further we have to look again at the work of Hobbes and more broadly, the Seventeenth Century scientific revolution and its impact on modern culture.

3. Hobbes and the scientific revolution

The development of philosophical anthropology, and along with it, modern natural philosophy and philosophical biology, can only be understood as efforts to overcome the core ideas of the Seventeenth Century scientific revolution, and most importantly, the conception of humans developed and promulgated by Hobbes and his epigone. Hobbes was part of a circle of philosophers led by Marin Mersenne who was characterized by Hobbes as “the axis around which every star in the world of science revolved”.²² This circle included Gassendi and Descartes as well as Hobbes. These thinkers were vehemently opposed to the Nature Enthusiasm of Giordano Bruno and more broadly, the civic humanism that had developed in the Renaissance, not to medieval thought as implied by MacIntyre. Civic humanism developed out of the humanities which in turn had developed particularly in Florence by philosophers concerned to defend their liberty at a time that it was under threat by reviving republican traditions of thought of ancient Rome, and beyond that, Greek ethical and political philosophy²³. Bruno’s cosmology, celebrating nature as self-organizing

and divine, provided support for a radicalized form of this civic humanism, defending not only republicanism but an egalitarian society²⁴. In 1624 Mersenne characterized Bruno as “one of the wickedest men whom the earth has ever supported [...] who seems to have invented a new manner of philosophizing only in order to make underhand attacks on the Christian religion”²⁵. Gassendi and Descartes, inspired by Mersenne, not only opposed the influence of Bruno and Nature Enthusiasm but strove to provide an alternative to this cosmology. This was the new “mechanical philosophy”. Descartes and Hobbes also rejected civic humanism, and Hobbes undertook to replace it, along with Aristotelian political philosophy, with a complete social, political and ethical philosophy based on mechanistic materialism. As Stephen Toulmin has shown in *Cosmopolis: The Hidden Agenda of Modernity*, the hidden agenda of these mechanistic philosophers, which Toulmin characterized as the “counter-Renaissance”, was not only to dominate nature, but to create a social order in which people would be completely controlled²⁶. Hobbes was the crucial figure, being particularly hostile to proponents of democracy²⁷. He set out not merely to argue against the civic humanism of the Renaissance republicans with their commitment to liberty and self-governance, but to transform language by articulating a mechanistic view of nature and humans in accordance with Galilean science so that the liberty they aspired to would become unintelligible.²⁸ In place of democracy, Hobbes promoted a social order controlled by despots in which the rest of the population devoted themselves to commerce.

Hobbes recognized that human behavior could be modified, but treated this as a technical problem of identifying the causes that could alter the internal motions within people so that their behavior conformed to covenants of society promulgated by a self-interested

²² Cited by Skinner, Q. *Hobbes and Republican Liberty*, Cambridge University Press, Cambridge, 2008, 14.

²³ See: Baron, H. *The Crisis of the Early Italian Renaissance*, Princeton University Press, Princeton, 1966.

²⁴ See: Jacob, M. *The Radical Enlightenment*, The Temple Publishers, 2003.

²⁵ Mersenne, M. *L’Impiété de deists*. Quoted by Crombie, A. «Mersenne», *Dictionary of Scientific Biography*, Gillispie, C. (ed.), Scribner, New York, 1974, Vol. IX, 317.

²⁶ Toulmin, S. *Cosmopolis: The Hidden Agenda of Modernity*, Chicago University Press, Chicago, 1994, 24.

²⁷ Skinner, *op. cit.* 140.

²⁸ Skinner, Q. *Visions of Politics, Volume III, Hobbes and Civil Society*, Cambridge University Press, Cambridge, 2002, 13.

despot. Language was reduced to remembering causal regularities, conveying such knowledge to others, letting our will be known to others, and amusing ourselves²⁹. In place of the Roman and Renaissance notion of liberty, defined in opposition to slavery as being under one's own jurisdiction and not being in a position where one can be harmed by others on whom one is dependent, freedom was redefined by Hobbes as actions generated by the internal motions of matter within people free of external impediments. In society people are free, Hobbes argued, when through fear of the consequences of disobeying laws they acquire a will to obey the laws³⁰. What was an obnoxious condition of slavery for the republican Romans, conformity brought about by fear, was from Hobbes' perspective, freedom³¹. Reformulating language in this way Hobbes was not merely opposing democracy, but rendering consideration of what virtues are required for its functioning and how they can be fostered, unthinkable.

The first thing to be noted about this revolution in thought is that not only was it proposing a new conception of physical existence, of matter in motion without purpose, but it was defending this as the one true conception of physical existence having achieved absolute certainty through rigorous methods and deductive reasoning. It was the beginning of the whole tradition of "scientism" according to which only "science" can achieve genuine knowledge; all else is subjective or culturally relative. Secondly, that Descartes, and following him Newton and Leibniz, were natural philosophers, and Hobbes' work was essentially a work of philosophical anthropology. Despite Hobbes' hostility to Aristotle and the civic humanists, he accepted that it is in our characterization of what humans are that ethics and politics are grounded, along with technical knowledge. At the same time, Hobbes' work was really a subversion of ethics and political philosophy. Aristotle had argued that virtue and excellence do not exist by nature but have to be taught or cultivated. This was justified

theoretically in what again can only be called natural philosophy, philosophical biology and philosophical anthropology, by arguing that life and then humanity have distinctive characteristics above mere physical existence. Hobbes denied this, arguing effectively that humans are by nature egoistic and cannot be anything other than egoistic, although they might try to disguise this. Finally, Hobbes locked all this in place by redefining all knowledge as technical knowledge, knowing how to control the world³². While Descartes argued that his new conception of nature would facilitate its control, Hobbes identified theoretical and practical reason with technical reason, identifying science with knowledge of causal relations through which we can control the world based on science.

Of course Hobbes was not entirely successful in this project. Remnants of medieval culture have survived up to the present, and continue to be defended. His philosophy was also challenged by defenders of the humanities, from Giambattista Vico onwards, and later philosophers and scientists aligned with the humanities against the mechanistic world-view. Vico in particular revealed the inescapable role of memory and imagination in the constitution of societies, the role metaphors and narratives in thought, and the essentially historical nature of humanity, defending the priority of history over mathematics in achieving comprehension of reality. For Vico, knowledge of how live and of proper human action requires of people that they grasp the whole of any situation of any subject important to them, and that this whole be put into words so that it can be objectified and understood. It requires *sapientia*, wisdom of the whole achieved through self-knowledge, and *eloquentia*, the ability to put this whole into words³³. However, as Hobbes' conception of humans was appropriated and then elaborated by economists, biologists, including Darwin and his disciples, behaviourist psychologists and positivist sociologists, his quest to displace the humanities has continued to advance. It not only permeated

29 Hobbes, T. *Leviathan*, Penguin Classics, Harmondsworth, 1968, 101f.

30 Ibid, 262f.

31 Skinner, *Hobbes and Republican Liberty*, 127.

32 Hobbes, *op. cit.* 115.

33 See: Verene, D. «Introduction». In: Vico, G. *On Humanistic Education (Six Inaugural Orations, 1699-1707)*, Cornell University Press, Ithaca, 1993, 9.

discourse, but was incorporated into people's forms of life, their institutions and their embodied dispositions as a *habitus*³⁴. Increasing numbers of people came to accept unreflectively their role as *homo economicus*, that is, efficiently functioning sociopaths pursuing their subjectively defined ends efficiently. In the new consumer society generated by increasing productivity, their only end as consumers is to consume more and have the means to consume even more, and as managers, to subjugate and exploit everyone and everything as efficiently as possible to provide ever more products for sale. In place of self-knowledge and wisdom as a cultural goal, education and research aim at technical knowledge, and where-ever possible, decisions associated with government, organizing people or controlling nature are placed in the hands of managers and technical experts with specialized scientific training. With the exception of some members of the corporatocracy and some marginalized intellectuals, very few people even try to gain an overview of where all this is leading us, even as the very future of humanity is threatened, and they are discouraged from doing so. The project of gaining certainty in knowledge and the claim to have a sure-fire method for accumulating certain knowledge have served to lock in place the assumptions of the Seventeenth Century scientific revolution, even when, as in the case of Kant and then Husserl, the concern had been to acknowledge the reality of human freedom and to give place to ethics. Most importantly, epistemologists have defended the claims of science to certainty, removing any place for questioning the assumptions on which mainstream science is based. It is in this context that ethics can be compared to a bicycle brake on an international jet airliner; it is irrelevant.

4. Natural philosophy, philosophical anthropology, science and ethics

However, the quest to achieve such certainty has failed over and over again, beginning with Descartes'

whose science was shown to be defective by Newton and Leibniz. The next major failure was Kant's efforts, supported by neo-Kantians, to establish by transcendental deductions the conceptual framework for all future science. The biggest failure of all was the failure of logical empiricists to reduce mathematics to logic and scientific method to deductive and inductive reasoning, eliminating any role in science for speculative thinking while reducing philosophers to apologists for science. With these failures, natural philosophy, philosophical biology and philosophical anthropology were able to be revived and advanced. This began with Schelling's defence of speculative dialectics, C.S. Peirce's defence of abduction along with deduction and induction, and the critique of scientific dogmatism and the defense of speculative philosophy by Alfred North Whitehead. The failure of Husserl's transcendental phenomenology opened the way for the development of philosophical biology and philosophical anthropology. While the rise of analytic philosophy eclipsed these developments, the demolition of logical positivism by historically oriented philosophers of science undermined belief in the certainty of not only science but of mathematics and symbolic logic, advanced new ideas about the nature of rationality and recognized the reality of scientific revolutions and the role of speculative natural philosophy in making these possible. Alasdair MacIntyre was an important figure in this regard, revealing the essential role of traditions in making science possible and the role of historical narratives in integrating traditions and judging major new developments in science³⁵. Effectively, this meant reviving the arguments of Vico for the priority of the humanities over the sciences, showing that science can only function when guided by and incorporates the probabilistic reasoning of the humanities.

Such history has revealed the importance of natural philosophy, philosophical biology and philosophical anthropology to the sciences. Those scientists who believe that knowledge can be accumulated by following a scientific method have piled up masses of trivia. The great

34 For an analysis of how this took place, see: Gare, A. *Nihilism Incorporated: European Civilization and Environmental Destruction*, Eco-Logical Press, Bungendore, 1993, Ch.s 5, 6, 7.

35 MacIntyre, A. «Epistemological Crises, Dramatic Narrative and the Philosophy of Science». *Monist*. 1977; 60: 459-460, 467.

scientists have all been centrally interested in philosophical questions and the history of thought. It is argued that physics in recent decades has stagnated precisely because of the separation of natural philosophy and the physics. Recently, Roberto Mangabeira Unger and Lee Smolin (one of the world's leading theoretical physicists) called for a reinvention of natural philosophy focusing on nature, that is, not science, but the world itself. Dialectically related to science, and "unlike much of the now established philosophy of science", the intentions of natural philosophy "may be revisionist, not merely analytic or interpretive", they argued³⁶. Philosophical biology has been promoted even more vigorously among radical biologists with a variety of challenges to mainstream biology now having an impact on biology itself³⁷. Some of the most important recent work in this area is associated with biosemiotics inspired by von Uexküll and C.S. Peirce's philosophy. Biosemiotics has been taken up by those concerned to define the specific nature of humans, with the work of Terrence Deacon having become a reference point³⁸. This is complemented by those who are trying to naturalize phenomenology under the influence of Francisco Varela, and efforts to take into account complexity theory and hierarchy theory such as Alicia Juarrero³⁹. This is work in philosophical anthropology, even if not labeled as such.

Natural philosophy, including philosophical biology and natural philosophy, focuses on much the same subject matter as the theoretical sciences. So, what is the difference between philosophical ideas and scientific ideas, and what is involved in such philosophical work? To begin with, the interests of theoreticians and philosophers diverge, even when the same individuals are involved in each endeavour. Theoretical scientists as such are concerned to formulate their ideas precisely to elu-

cidate experience in specific situations, usually with at least qualitative predictions and thereby some form of testing, while philosophical approaches are concerned with achieving comprehensiveness. Consequently, philosophical approaches are more historical than the approaches of theoretical scientists, being concerned to do justice to the whole history of ideas on a particular subject. The theoretical physicist Carlo Rovelli, in turning to the philosophy of nature in order to gain insight the current stagnation and lack of direction in physics, examined the work of Anaximander and then surveyed efforts to understand nature through the history of diverse civilizations⁴⁰. Unger and Smolin in their effort to revive natural philosophy, again to overcome the stagnation in physics, have not only aligned themselves with Bergson and Whitehead, but defended history as more fundamental than mathematics for understanding nature. Philosophy is required to do justice to all domains of experience –scientific, historical, artistic, religious, everyday life and their own experience, as well as the work of past philosophers. It is required to identify contradictions between different domains of culture, and one of its most important tasks is to develop new conceptual schemes and new ways of understanding the world to overcome these contradictions. Philosophical thinkers (who often are not professional philosophers) are, or should be, engaged in the quest for a coherent, comprehensive understanding of the whole of reality, which must include this quest itself⁴¹. They have to engage with and accept challenges to their ideas from empirically validated developments in theoretical science, but to advance science, theoretical sciences should also respond to the challenges of natural philosophers.

Philosophical conceptions of physical existence, life and humanity, as opposed to scientific conceptions, are always explicitly evaluative, even if they are promoting nihilism. This is because the central concern of philosophers (until relatively recently) has always been to orient people to choose how to live and how to organize

36 Unger, R., Smolin, L. *The Singular Universe and the Reality of Time*, Cambridge University Press, Cambridge, 2015, 76.

37 For a history of such work, see: Markos, A. *Readers of the Book of Life: Contextualizing Developmental Evolutionary Biology*, Oxford University Press, Oxford, 2002.

38 See: Schilhab, T., Stjernfelt F., Deacon, T. (eds.). *The Symbolic Species Evolved*, Springer, Dordrecht, 2013.

39 On such work, see: Simeonov, P. Gare, A., Rosen, S. (eds.), «Integral Biomathics: Life Sciences, Mathematics, and Phenomenological Philosophy». *Progress in Biophysics and Molecular Biology*. 2015; 119(3).

40 Rovelli, C. *The First Scientist: Anaximander and His Legacy*, Westholme, Yardley, 2007.

41 This is argued in: Gare, A. «Speculative Naturalism, A Manifesto». *Cosmos & History*. 2014; 10(2): 300-323.

society, and more broadly to work out what humanity should be aiming at, thereby defining humanity's *telos*. David Hume's argument that we cannot derive and "ought" from an "is", although widely accepted, has been shown to be fallacious. Almost all the concepts we use to define the world and our place within it are evaluative as well as descriptive. To say of anything that it is alive, as opposed to lifeless, is to affirm its intrinsic significance. The notion of humanity, the focus of philosophical anthropology, defines what we should be striving to become, while the concepts of the inhumane or sub-human, define behaviour and goals that are to be condemned or despised. It is through these concepts that we orient ourselves and define our ultimate ends, and judge all other evaluative concepts of culture.

It is this that makes natural philosophy, philosophical biology and philosophical anthropology central to the humanities, to philosophy and to ethics, and is the basis for revealing a more fundamental role for ethics than is normally appreciated. Even to do this requires the use of language that goes beyond Hobbesian thought, utilizing Herder's characterization of humans as essentially cultural beings. Mikhail Epstein pointed out that the practical outcome of the natural sciences is technology and the practical outcome of the social sciences is the transformation of society through politics. If this is the case, he asked, what is the practical outcome of the humanities (most importantly philosophy as part of the humanities)? It is the transformation of culture⁴². However, culture is not something separate from people. With the humanities, the object of investigation and the subject coincide. To transform culture is to transform ourselves. Major developments in the humanities, which include philosophy, create new subjectivities; that is, new characters and new agents in the world. It is easily seen from this characterization of the humanities why the humanities are more fundamental than the sciences, as Vico argued. The natural and the social sciences are themselves part of culture, and it is through the humanities, and philosophy in particular, that what they are and how

they should be conceived is determined; that is, whether science should be defined as the quest to understand the world or simply a means to develop technology. If the goal is understanding, then the basic conceptions of nature, or life or humanity is absolutely central to any scientific research program, and it is the task of philosophy to identify, reveal, question, and possibly develop alternatives and replace prevailing conceptions. Furthermore, the humanities are creative in a more fundamental way than are the sciences. To transform culture is to change the way people define themselves in relation to the rest of the world. To put forward a new notion of nature and then of life and of humanity is the beginning of a transformation of humanity and its relation to the rest of nature. As Epstein argued, it is creating the future, and there is no area of enquiry more important than philosophical anthropology for doing this.

5. Redefining ethics through philosophical anthropology

I have suggested that the ideas developed by Hobbes have had a far more powerful influence on the culture of modernity than is generally realized, not merely as specifically espoused and defended, but as assumptions about humanity and society operative within different disciplines and in people's practices and forms of life. Other ideas are tolerated, but only as matters of private concern or consumption, whether these pertain to religion, art or general views about life, and most people would not admit to accepting a Hobbesian view of humans, but it is often such people who are most dominated by it in practice. Even those philosophers engaged in ethics who are critical of mainstream ethical philosophies have accepted a way of understanding the role of ethics deriving from Hobbes, which marginalizes it. This can be seen if current understanding of ethics is compared to the way Aristotle conceived ethics. His study of ethics presupposed his theoretical work characterizing the nature of being and of life. He was pre-eminently concerned with politics, and how to develop the character of people to sustain the polis as a self-governing community. The *Nicomachean Ethics* was

⁴² Epstein, M. *The Transformative Humanities: A Manifesto*, Bloomsbury, New York, 2012, 8f.

concerned above all with working out what is the ultimate end of life, which he argued is *eudaimonia*, a fulfilling and fulfilled life. The *Politics*, which followed this, examined the various constitutions in Greece to show how such communities could best be organized to enable people to live such a life. For Aristotle, the second book *Politics* was more important than his *Nicomachean Ethics*, but it was still about ethics. As Timothy Chappell pointed out, *eudaimonia* was the objective of politics⁴³. The study of ethics and politics were understood by Aristotle and his students not just as philosophical endeavours, but as part of state craft. As part of this state craft, Aristotle was concerned to work out how to cultivate the virtues that would sustain the social order in which they could achieve *eudaimonia*. This is a society in which people would be able to develop their highest potential as human beings, and he believed that this could only be achieved in a society in which people govern themselves. In defining humans as *zoon politikon* or "political animals", Aristotle was suggesting that people who do not live in a polis that is self-governing, thereby developing their highest virtues of rationality to become *zoon logikon* or a "rational animals", are not fully human. This view was embraced by Cicero in Rome in his defence of the republic for upholding the condition of liberty, defined in opposition to slavery, and it was revived again in the Renaissance.

If ethics is to recover such a place and have a real impact in addressing environmental problems it is necessary not just to embrace virtue ethics, but ethics conceived as defining the ultimate *telos* of life and of society and working out how society can be organized to enable these ends to be achieved, and then working out how to develop the character of people necessary for identifying, sustaining or creating the social forms in which these ultimate ends can be successfully pursued.

It is impossible to simply revert to Aristotle's thinking on this; he lived in a much simpler society than the present global order. However, a philosopher who did assume Aristotle's broader role for ethics while attempting

to develop an ethics and political philosophy adequate to modernity was G.W.F. Hegel. Hegel's work on ethics was his *Grundlinien der Philosophie des Rechts, oder Naturrecht und Staatswissenschaft im Grudrisse*, translated into English as *Philosophy of Right*. In fact, as Kenneth Westphal points out, *Recht* is better translated as justice, and the work encompasses ethics and justice, individual character and criteria of right behavior, and is a rational, normative systematic theory of social life⁴⁴. It is, as Frederick Neuhauser argued, "a social theory that is unsurpassed in its richness, its philosophical rigour, and its insights into the nature of good social institutions"⁴⁵. What is not generally acknowledged is Hegel's contribution to philosophical anthropology, and the extent to which this work is based on his early efforts to overcome and replace Hobbes' conception of humans. Hegel is only mentioned by Honneth and Joas in relation to the work of Feuerbach. It is necessary to acknowledge a more prominent role for Hegel's philosophy in the history of ethics and philosophical anthropology.

Initially, Hegel was closely aligned with Schelling and influenced by the same philosophers, notably Kant, Herder and Fichte, but also by Greek philosophy. Kant had argued that the condition of the possibility of science, which at the same time provided the basis for upholding the reality of freedom as the foundation for ethics, is the self-identical 'I' which persists through all our changing experiences. This had been accepted by Kant's followers, but Fichte in his *Foundations of Natural Right* had shown that such an "I" could only develop and sustain itself as such through limiting itself through recognizing and respecting others as free agents who in turn reciprocate this recognition, recognizing its own freedom. Integrating Fichte's and Herder's philosophies, Hegel portrayed the ego as the result of the development, from immediate sensitivity to self-awareness, then to self-consciousness gained through achieving reciprocity of recognition in interpersonal relationships, and finally to universality through participation in ethical and cultural life, which he characterized as Spirit. He

43 Chappell, T. «Aristotle», in: *Ethics*, Angier, T. (ed.), Bloomsbury, London, 2012, Ch. 2.

44 Westphal, K. «Hegel». In: Angier, *op. cit.* Ch. 7.

45 Neuhauser, F. *Foundations of Hegel's Social Theory: Actualizing Freedom*, Harvard University Press, Cambridge, 2000, 1.

characterized ethical and cultural life as three interdependent dialectical patterns: symbolic representation which operates through the medium of language, the labour process which operates through the medium of the tool, as well as interaction on the basis of reciprocity of recognition operating through the medium of moral relations, with each of these being a constituent of the others, but not reducible to them.⁴⁶ It is in terms of this conception of humans that the social order and its institutions were both explained and evaluated, along with the character and actions of its participants. While Hegel did not use the language of virtues, in fact like Aristotle, his central concern was with the fostering of virtues and the development of character, taking into account the diversity of roles that people are required to play in the more complex societies of modernity. And like Aristotle, he was concerned with the conditions for creating and maintaining a social order in which people's potential for humanity could be fully realized so as to augment these conditions. While later philosophical anthropologists have developed different facets of this conception of humans, in almost all cases they have abstracted away from the complexity of Hegel's anthropology.

Hegel was an Idealist, and this neutralized the impact of his anthropology. As Honneth and Joas put it, "Hegel soon forced this theory of recognition [...] back into the mentalistic framework of his system of philosophy and thereby deprived it of its explosive power".⁴⁷ And while this power was evident in the way Marx had appropriated it in his *Economic and Philosophical Manuscripts* of 1844, Marx's critique of political economy really gained its force by revealing and challenging the Hobbesian assumptions of classical economics, and interpreting the functioning of the economy from the perspective of Hegelian philosophical anthropology. However, Honneth and Joas complain that in this later work, "Marx, like Hegel, abstracts from all human subjectivity in order to be able to deploy for the analysis of capital Hegel's logic as a methodological model suitable to the abstraction that

is really effectuated by capitalism". As a consequence, "the anthropological foundation of historical materialism retreats completely into the background in the late stage of the development of Marx's theory".⁴⁸ Hegel did develop a philosophy of nature, but he argued that Nature was posited by Spirit as its other, against which Spirit has developed through the struggle to control it. There was no place for challenging this domineering orientation, as Schelling had in opposition to Fichte.

However, the tradition of post-mechanistic natural philosophy largely inspired by Schelling, and work in science guided by this philosophy, provides the basis for reviving Hegel's anthropology while conceiving humans as the product of evolution. In particular, the work of the biosemioticians as defended and further developed through hierarchy theory, according to which nature is creative, with new kinds of processes and new kinds of semiosis having emerged through enabling constraints, has provided the means not only to defend but to further develop Hegel's philosophical anthropology on naturalist foundations⁴⁹. Furthermore, Robert Rosen's theory of anticipatory systems provides the mathematical insight necessary to understand how systems can consist of components which are constituents of each other without being effects of each other, and can have models of themselves in their environments so they can anticipate and respond to the future⁵⁰. This removes any reason for not ascribing a *telos* to natural processes, including ecosystems, and to humans and to humanity, and clarifies Hegel's insight that human development involves three dialectical patterns that are components of each other but not reducible to each other.

Interpreting nature this way means that nature can no longer be regarded as simply that which resists our efforts to control it, and we have to recognize that we as subjects are participants within nature, most importantly, in ecosystems, with their own *telos*, the resilience

46 The best analysis of this is in: Habermas, J. «Labor and Interaction: Remarks on Hegel's Jena *Philosophy of Mind*», in: *Theory and Practice*, Habermas, J., Heinemann, London, 1974, Ch. 4.

47 Ibid, 16.

48 Ibid, 24.

49 See: Gare, A. «Philosophical Anthropology, Ethics and Political Philosophy in an Age of Impending Catastrophe». *Cosmos & History*. 2009; 5(2): 264-286.

50 See: Rosen, R. *Life Itself: A Comprehensive Inquiry into the Nature, Origin, and Fabrication of Life*, Columbia University Press, New York, 1991.

of which can be undermined and destroyed. Ecosystems themselves have emergent dynamics and complex forms of interdependence between co-evolved species. The most fruitful developments in ecology involve appreciating them as energetic systems transforming exergy into entropy, transforming their environments and the environments of each of their members to facilitate their flourishing and capacity to explore of new possibilities, engendering new structures and new forms of semiosis facilitating new forms of symbiosis. In fact organisms, including humans and their communities, can be understood as highly integrated ecosystems, with all ecosystems having ecosystems as components⁵¹. Ecosystems can be healthy or sick, more or less alive according to their capacity to respond effectively to perturbations, but also their success in providing the niches in which component ecosystems or organisms can explore now possibilities that will augment this resilience, and eliminating component ecosystems or organisms that foul their own nests and undermine this resilience⁵². These concepts can be applied to human societies and to the global ecosystem, which at the same time can be conceived of a semiosphere, a sphere of diverse kinds of semiosis⁵³. The emergence of humanity in this context was associated with new forms of semiosis, including but not only symbolic semiosis, associated with human culture. Human culture, as characterized by Hegel, can be interpreted as a component of the semiosphere of the current regime of the global ecosystem.

Ethics from this perspective is the subject concerned with what potentialities we should strive to develop to live fulfilled lives as culturally formed beings, participating in a diverse range of ecological communities, non-human and human, living in such a way that by advancing the *telos* of our culture we augment our own lives and the lives of communities and institutions of which we are part insofar as each of these is augmenting the

lives or conditions for life of other communities and institutions, and the conditions for further advancing culture.

6. Philosophical anthropology and environmental ethics

Freed from the straightjacket imposed by Hobbes on thinking about ethics, it should now be evident that ethics is not a marginal discourse, an add-on after all the important decisions have been made by economists, managers and technocrats with a pathetic hope of reigning in the egoism of a decadent population. What it is and what it should be is brought into focus by philosophical anthropology. The tradition of humanism going back to the Renaissance, which itself was a rebirth of republican Roman and Ancient Greek thought, saw ethics as inseparable from the quest for self-knowledge. We can now see that self-knowledge means above all knowledge that humans are cultural beings. Cultures are integrated by historically developing traditions and the narratives by which they and their ends are defined, but are also embodied in institutions, social formations and physical structures. They can only be fully understood as having formed and evolved over millennia, the product of interacting and competing traditions, sometimes from diverse societies, and ultimately as has having emerged within nature. Cultures also consist of projects of various magnitudes, some of which have involved struggles over millennia. As Heidegger put it, we are thrown into a world that is already underway. And cultures are riven with contradictions, opposing tendencies, rival traditions, defects and forms of decadence as well as celebrated achievements. The culture we find ourselves within at present is a globalized culture driven above all by the quest to dominate nature and people, organized through the imposition of markets on human relationships, in so doing destroying our ecosystems and enslaving people to serve the destructive dynamic of the global market, with opposition to this crippled by decadence engendered by this defective culture. Central to self-knowledge is understanding what humans are, what

51 Depew, D., Weber, B. *Darwinism Evolving: Systems Dynamics and the Genealogy of Natural Selection*, MIT Press, Cambridge, 1996, 474.

52 See the papers in: Costanza, R., Norton, B. Haskell, N. (eds), *Ecosystem Health: New Goals for Environmental Management*, Island Press, Washington, 1992.

53 See: Hoffmeyer, J. *Signs of Meaning in the Universe*, Indiana University Press, Bloomington, 1993.

is possible for them, and which possibilities should be realized. This is anything but simple, because conceptions of what humans are is at the core of cultures. The major cultural, social and political conflicts within civilization are over how humans should be conceived.

To state things in this way is already to have aligned oneself with the humanities against mainstream science and to have embraced a major tradition of philosophical anthropology against the Hobbesian tradition of thought. But if this tradition is right, it is impossible to do otherwise. I have also suggested that Hegel's early synthesis of ideas was a major advance in this tradition, although because of a breakdown in the development of the humanities, this generally has not been appreciated. From this perspective, each individual, is engaged in the three dialectical processes of representation, recognition and labour, and by virtue of this engagement, are involved in the struggles of humanity for truth, justice and liberty, including liberty from economic necessity, whether or not the advance these struggles or subvert them. These quests are major components of the *telos* of humanity whether recognized or not, and are at the core of all ethics and the core of people's self-formation. This does not mean that people will embrace the challenges presented by these components of humanity's *telos*, or that they will take responsibility for their self-formation, but they have the potential to do so. Failure to embrace this potential results in a lack of integrity (whole and undivided) and is a deficient, unhealthy (un-whole) form of human existence.

The quest for truth, as understood by the humanities, is not the identification and accumulation of facts. It grows out of the quest for self-knowledge as participants in the world, and is the quest for trustworthy beliefs and ways of understanding and the world we are part of. It is not achieved by finding absolute foundations for knowledge but by struggling to overcome limited, one-sided and otherwise defective beliefs, thoughts and perspectives on the world. The ultimate aim of this quest is wisdom, a comprehensive understanding of the world which is not merely a matter of intellectually held beliefs, but beliefs appropriated and lived, embodied

as a *habitus*. In the modern world it is impossible to ignore the contributions of the sciences to the quest for such truth, but the sciences should never be taken at face value and should be continually interrogated and criticised to overcome limited ways of thinking. As Schelling argued, science must acknowledge the reality of humans as free agents simply to uphold any claim for the validity of science, and conclusions contradicting this should be challenged. This means challenging not only reductionist biology and psychology, but mainstream economics, and developing alternative forms of science. The conception of humans and their relation to nature assumed by economists have to be replaced, and they are being replaced by ecological economists⁵⁴. Since practices and institutions are based on beliefs, this quest for truth simultaneously involves recognizing, questioning and reformulating the ends embodied in practices and institutions, identifying and reconciling contradictions between different ends. Upholding this is not only central to ethics, it is a challenge to all those practices, forms of life, institutions and social formations incorporating the Hobbesian conception of humans, rethinking in the process the *telos* of our civilization.

It is this quest for truth that has forced people to acknowledge that as cultural beings, humans are part of and have evolved within a dynamic, creative nature, being participants in ecosystems with a range of co-evolved species. Just as cultures and social formations are already underway with their projects, ecosystems are underway, and have memory and a capacity for anticipation.⁵⁵ They have a *telos* to augment their resilience by providing the environments for their constituents to develop the potential in a way that augments this resilience, thereby augmenting the life of these ecosystems. This is how the global ecosystem emerged and has evolved, providing the conditions for the development of humanity and its civilizations, although those civilizations that in the past undermined the health of their ecosystems were

⁵⁴ See: Vatn, A. *Institutions and the Environment*, Edward Elgar, Cheltenham, 2005.

⁵⁵ See: Power, D., et. al. «What can ecosystems learn? Expanding evolutionary ecology with learning theory». *Biology Direct*. 2015; 10(69): 1-24.

destroyed⁵⁶. The advance of this quest for truth involves recognizing that the ultimate *telos* of humanity with its global culture must be the augmentation of the life, health and resilience of the current regime of the global ecosystem and its component ecosystems.

The quest for truth is intimately related to the quest for justice as proper recognition, although not reducible to it. Nor is the quest for recognition merely part of the quest for truth, although again, it is inseparable from it. As Hegel argued, the history of European civilization can be understood as the outcome of the successful struggle by more and more people for proper recognition of their potential to control their own destinies and to take on roles in the institutions of society as responsible individuals. The overcoming of slavery, serfdom, discrimination against women, different ethnic groups and minorities, and the development of modern democracies in which everyone is recognised as free by the institutions of the state, along with the development of the United Nations and the struggle against colonialism, are all manifestations of success in these struggles. They are associated with upholding a conception of humans as capable of such freedom and of being able to be educated to take responsibility for themselves, their institutions and their communities in the present and the future. This has meant upholding in practice the humanistic conception of humans as cultural being capable of realizing this potential through education, which must be above all the cultivation of the character of people so they can sustain these institutions and this quest, including the institutions required for the pursuit of truth and justice. The further extension of this dialectic of recognition involves appreciating the intrinsic significance of non-human life forms, and the semiotic and other processes involved in the co-evolution of humanity in its ecosystems⁵⁷. We can and should now see that the dialectic of recognition in humanity is a further development of recog-

nition associated with biosemiotics. Such recognition was manifest in the first eukaryotic cells in which the symbiosis of mitochondria and the rest of the cell was based on the cell not digesting the mitochondria but providing the environment in which the mitochondria could flourish. The complex nature of human semiosis within the context of their ecosystems is evident in their relation to flowering plants and the European honey bee. Flowers are a sign to bees and other organisms, including humans who move bee hives to where there are flowers, that there is nectar available, the bees communicate with each other by complex dances to guide each other to the flowers, while the changing colour of fruit is a sign that is ready to be eaten by animals, including humans who will then spread the seeds. The quest for recognition must now be extended to recognizing all these complex life forms and the more basic forms of semiosis from which cultural processes emerged and on which they are based⁵⁸.

The dialectic of labour and the quest for liberty are the most problematic dialectics in civilization. This is the dialectic focussed on by Marxists. Controlling nature through technology is important to liberty, as Marx assumed and Amartya Sen has argued, but this quest tends to undermine its goal⁵⁹. The development of technical knowledge has augmented the quest for truth, but also has distorted it. The development of mechanistic materialism and other reductionist sciences illustrates this. Similarly, the orientation to control has a strong tendency to corrupt the quest for justice, treating people as mere instruments. Finally, this dialectic tends to undermine people's liberty. Humans in hunter gatherer societies were omnivores and tended to stabilize and augment their ecosystems through their metabolic processes. However, with cultivation, the quest for control of the environment led to the enslavement of some people by others. Apparently more efficient means to control nature were developed, eventually leading to industrial civilization, but combined with the domination of people, these developments have tended to produce

56 See: Chew, S.C. *The Recurring Dark Ages: Ecological Stress, Climate Changes, and System Transformation*, Rowman & Littlefield, Lanham, 2007.

57 See: Kull, K. «Ecosystems are Made of Semiotic Bonds: Consortia, Umwelten, Biophony and Ecological Codes». *Biosemiotics*. 2010; 3: 347-357.

58 See: Kull, K. «Vegetative, Animal, and Cultural Semiosis: The semiotic threshold zones». *Cognitive Semiotics*. 2009; 4: 8-27.

59 Sen, A. *Development as Freedom*, Anchor, New York, 1999.

hypercoherent structures oblivious to the damage being done both to dominated people and to their environments. Hypercoherence leads to ecological and civilizational collapse⁶⁰.

To avoid this, it is necessary to have a clear idea of what is liberty. Liberty, or freedom, has different dimensions. Firstly, it involves freedom from slavery where one has autonomy and can assert oneself without fear of retribution, secondly it involves freedom from external constraints, and thirdly, the conditions to develop one's full potential to live with integrity and to participate in worthwhile endeavours and be recognized for this. All these are required for genuine liberty. Freedom from slavery has always been seen to require the cultivation of the virtues of responsibility and loyalty to one's community, along with other virtues. Freedom from external constraints without responsibility in isolation from the other two dimensions of liberty is the form of liberty aspired by tyrants and slaves, with each engendering the other. It is the form of freedom championed by Hobbes in place of freedom from slavery to defend rule by tyrants, and by Lockean liberals to defend rule by oligarchs. The quest for positive liberty, the liberty to do what is worthwhile, was extended to all work by Hegel and more forcefully by Marx in the *Economic and Philosophical Manuscripts*, arguing that people should be properly recognized for the value of their work, their crafts and professions, and for what they produce, rather than being treated as disposable instruments for maximizing the profits of their employers, which is really a new form of slavery. Such an organization of work is only possible through the cultivation of the virtues of workmanship and professionalism and acceptance of the responsibility required for such work, including the responsibility for the management of organizations. Gaining liberty with all the virtues required for achieving and sustaining it is absolutely essential to overcoming the current enslavement of people to the managers of transnational corporations and technocrats and the destructive logic of the globalized market.

⁶⁰ Bunker, S. *Underdeveloping the Amazon*, University of Chicago Press, Chicago, 1986, 253.

Seen in these terms, ethics is absolutely central to confronting the global ecological crisis. Meeting this crisis really involves a major transformation of culture, most importantly the culture promoted by defective forms of science such as mainstream economics, but also assumptions about what are humans and what is their place in nature embodied within and reproduced by social practices, institutions and broader social formations that are often inculcated in such a way that people are not aware of what they assume in their practices. It requires of people to reflect upon themselves and their culture and become aware of what is being assumed, then replacing the dominant but incoherent and fundamentally defective conception of humans as Hobbesian mechanisms moved by appetites and aversions. This should be replaced by a naturalized version of Hegel's philosophical anthropology. Ethics is even more important in current societies than when Hegel wrote because it is not simply a matter of defending and sustaining old and the emerging institutions designed to keep markets subordinate to communities, which is really what Hegel was defending, but living in a world that has broken free of the constraints of these institutions through the globalization of the economy and is now on a trajectory towards self-destruction through ecological destruction. This will involve defending old institutions that are now being corrupted, such as the Humboldtian model of the university which everywhere is being undermined and replaced by the business model of the university, but also forming social movements at multiple levels not only to challenge existing power elites and power structures, but to develop and establish new practices, institutions and new social, political and economic forms. Requisite virtues need to be cultivated in the members of these old institutions and in the new social movements and formations if they are to preserve their integrity and survive and flourish in what are at present are hostile social, political and economic environments. The most important of these virtues are wisdom, understood as the comprehensive understanding of the world and oneself so that the significance of these institutions, the roles people play within them and individual actions are fully appreciated in the broader scheme of human

history and the evolution of life, and the courage to live according to this wisdom. These institutions need to do more than survive. They need to be developed to change the direction of civilization by providing the foundations for a new, global, ecological civilization⁶¹.

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