

Introduction

Humanity has in various ways long denied or hidden from itself its own creativity and the responsibility of humanity for so much of what we find around us. We need to confront and accept that creativity so that we can make the most of it. In words that will infuriate the religious right and perhaps provoke a book burning or other useful publicity, one could describe one of my theses as that humanity had to create itself before it turned to creating the world. Behind those inflammatory words are two deep points that will be central to the discussions that follow.

The first point, as I shall argue in a number of places, is that nothing external to humanity could have forced that transition ‘from herd to tribe’ (in Marx’s phrase) that has constituted us as human beings. That transition from pre-social to social beings which humanity had to manage for itself, has created an entirely new type of being whose trajectory of development is historical and not simply shaped by the environmental forces that drive evolution. On the contrary, as I point out in a number of places below, humanity can be described as precisely that species which has turned its back on evolution and instead of being modified by environmental forces has set about modifying its environment. That is one sense in which it is ‘creating its world’. Evolution itself can hardly have been the agency for that transformation of the pre-social members of the genus *homo* and that surpassing of itself and emerging as social beings. Just as the emergence of life out of non-living molecules set off a new evolutionary principle of development, a transition that could not be explained chemically, so the emergence of a new species that set itself outside of evolution cannot be explained by evolutionary principles themselves.

Also, in creating their world, humans did not start with nothing but worked with they found around them. They had a material world to work with which became the subject of their productive and creative powers and allowed humanity to develop those powers both to create and to make distinctions and to classify. And, in that creative power to classify, humanity produced order out of the primal chaos that had constituted the material world before those human classifications were imposed on it. Modern philosophers, including the empiricists, have generally denied human creativity in this area and worked with the contrary idea that there was a pre-existing order in the material world which our classifications could only try to mirror and that we are essentially passive in the face of that order. One of our jobs will be to dismantle this conception and put in its place a picture derived from William James' description of how the world is for the new-born infant: 'a booming, buzzing confusion'. Order comes to that world as the child learns the language and the classifications made by the culture which it is being inducted into. That 'buzzing, booming confusion' is how the world would have been for the earliest humans as they were starting out to develop languages to cope with it.

It is at this point that I ought to make an important modification to my opening statement, because the self-creation of humanity and the creation of their world out of that primal chaos through the classifications that are embodied in language are not sequential processes but are simultaneous and dialectically linked. We create ourselves as creative, reflective and social beings through setting ourselves apart from the material world by producing it both intellectually and by physically shaping it. The product is something separate from the producer even though producing something may be part of turning the producer into a carpenter, poet, musician, farmer or painter. One becomes a painter *through* doing paintings. Painting and becoming a painter are two sides of the same process and a good painter

is always becoming better through painting. And the development of humanity is not a process that came to an end some time ago but continues as we continue to develop our capacity to produce both classifications and things through knowledge and skills, science and technology. And it is this that gives us the sense and force of that radical claim of Marx's that nature has a history that is dialectically connected with the history of humanity - a claim we shall try both to clarify and to illustrate. It also gives us a starting point for a critique of and a clarification of that concept which has been twisted and distorted by ideologues who have wanted to use it to explain/justify historical developments, practices and institutions in the modern era - the concept of 'human nature'.

That process of creating the world we know (is there any other?) will be the subject of several chapters, particularly 'Forms of Life and the Construction of Reality' (ch.3), 'The Material and the External' (ch.4) as well as, 'Historical and Ahistorical Views of the World' (Ch.1). In Chapter 3 I give a concrete historical example of that 'construction of reality' (the world) by looking at the way in which the atoms were transformed from 'mere hypotheses' (as they were described at the beginning of the 19th century) to 'indubitable realities' by the beginning of the 20th. That transformation was the result of the work of the generations of scientists who made the 'hypothesis' of the atoms the foundation of their work in physics and chemistry and ultimately in their understanding of biology, electricity, X-rays and other forms of radiation. In the end so much of our understanding was built on that foundation that it was no longer possible to formulate and express any doubt that had meaning and was not just empty 'words of the mouth' with no substance or connection with life or scientific practice.

But before we can take all of that in properly we will have to clear out of the way the many mystifications that were erected by philosophy in the modern era in its pursuit of its perceived task of showing the new

social order put in place by the bourgeois revolution to be a 'natural' and 'necessary' replacement for the feudal order that had been overthrown. The chief of these mystifications were the result of the armory of concepts that was forged in the course of creating the framework of thought and world-view that had mechanical materialism at its center. At the center of this armoury itself was a concept of 'Nature' (with a capital 'N' to indicate the quasi-divine status it was given) that had deliberately and at great cost, been torn loose from the roots in the ordinary world that Aristotle had given it and projected into the heavens where it was meant to govern the world and maintain the order of things.

The emptiness and incoherence of this picture are discussed in a number of places below, but chiefly in 'The Concept of Nature, Its Mystification and Demystification' (Ch. 2). But empty though this conception of Nature as an external cause of regularities may be, it had an important ideological function to perform. It was meant to convince us of our subservience to a 'higher order' on which we can have no effect, and before which we can only stand passive while trying to discover its will (sorry, I should have said, 'its *laws*'.) The analogy with the Christian God was deliberate because Nature was being given precisely the role that had been played by the Christian God in the world-view and framework of thought of the previous era. The ultimate effect of that role was to hide from humanity its creativity and the fact that the worldly regularities attributed to this immaterial construct are in fact the product of the human practical activity of classifying those things we find worth grouping in the course of working with the material world to produce what we may require. As we will see, those classifications and their incorporation in language, themselves enforce the regularities of behavior which they record – regularities that then get attributed to something called 'Natures Laws'. The emptiness of that would-be explanation of the regularities is discussed in Chapter 2. The classifications themselves become the guarantors of the regularities

because by incorporating them into our language we make them into tests of identity and for the application of names. Roughly and crudely we can say that sugar is guaranteed to be sweet because if it isn't sweet we don't call it 'sugar'. This is only 'roughly and crudely' true because our classifications are not fixed for all time once they are made and we may come to see the need or the usefulness of modifying them in the light of further experience. This is because the classifications we humans make are not arbitrary, but are made in the light of their usefulness in the various ways of life, practices, skills and existing classifications that we have made over time in our culture. Language is one of the first things we need to see as a human artifact which is not determined by, or a mirror of, some pre-existing order of things. Rather language is shaped by the form of life, the environment, the skills and the history of the culture as it has developed over the millennia.

This introduces two of the main themes that will be occupying us in the following discussions – the fundamental role of language in defining our world for us, and the need for a historical perspective to ground our attempts to make sense of that world.

Our classifications and the languages that incorporate them are subject to a historical development which needs to be described as 'dialectical' – in the sense that the skills and practices, on the one hand and the classifications, on the other, are mutually influencing and a development in one will be the basis and starting point for a development in the other. The development of certain skills will lead to the recognition of regularities that will get incorporated into our language and then lead to the further development of those skills. There is in effect a 'dialogue' between those skills and practices and the recognition of regularities that get incorporated into our language – a 'dialogue' that leads to mutual development. When the mystifications have been peeled off it this is what 'dialectic' fundamentally means. As a clear and simple example of a dialectical development, I have often use the example of Galileo using his

pulse to time the period of a pendulum swing, and in that way to discover the law of the pendulum relating the period to its length. From this it was possible to design clocks that were able to show up irregularities in Galileo's pulse. This is the paradigm of development in the sciences – what starts off as a starting point and a test, becomes with the advance of the subject, something that itself gets tested and explained by deeper starting points that will in the end be subject to the same fate. What it shows us is that the search for ultimate foundations is both unnecessary and pointless as soon as we adopt that dialectical stance.

In clearing these cobwebs out of the way I call in the assistance of the historical perspective that Marx incorporated in his Historical Materialism which was a framework of thought which was created precisely to do that job. Marx and Engels were the first to spot the ideological role and function of the mechanical and ahistorical materialism that has dominated the modern era and they set about opposing it with a materialism that was both historical and founded concretely in the material world and in human practices instead of in some transcendentalized and deified concept of 'Nature'. I try to repay the help I have from them by offering my account of the transformation of the atoms from hypotheses to realities as an illustration of that difficult claim of Marx's that nature has a history and one that is linked dialectically with the history of mankind. We develop nature and ourselves in the same act. But to say simply that we produce ourselves as producers and create ourselves as creators is to miss out the fact that those abilities to create and to produce are continually being developed and enhanced. As Marx says, both humanity and nature have a continuous history of development.

With the help of that historical framework I want to make a start on a huge task that will need the help of many others, and in the nature of things will never be brought to a complete end till historical changes

make it redundant. The job, which is long overdue, is that of dismantling and offering an alternative to a whole world-view that has been with us since the 17th century. This picture is composed of many mutually supporting parts, which, in addition, both support and are supported by, a social system and set of institutions and values that is spreading through the world under the mantle of capitalist globalization. This world-view includes a view of humanity, of nature, the relation between them, as well as a view of human knowledge and truth, all of which paint a picture of human passivity in the face of entities set up as transcendental and eternal.

This picture has an associated vocabulary of terms such as 'reality', 'truth', 'externality', 'nature' and 'nature's' laws', which have never been adequately and concretely defined and so tend to draw us into the never-never land of transcendental concepts which has been an crucial product of this world-view and helps to keep it safe from close examination by being located in the heavens - well out of reach. Our job will be to bring those concepts down out of the heavens and demand that they get concrete definitions that relate them to the world and to life. Where this turns out to be impossible we can be justified in rejecting those concepts as empty and useless - except for the purposes of mystification. One of the chief of these is the concept of 'external reality' or 'what is external to humanity'. This gets dealt with in Chapter 4, 'The Material and the External', where I try to give a concrete sense to what can be meant for something to be designated as 'external to humanity'.

The 17th century was last time this job of dismantling a whole world-view and substituting of another was done. The occasion then was the overturning of the feudal system and its replacement by a market economy based on the towns. (Because it involved the shift of the center of economic activity from the country to the town, this has been called the 'bourgeois' revolution and it is for this reason that the associated world-view has been called the 'bourgeois' - meaning this in a strict

sense as 'town based' and not as some term of simple disparagement.) The job that the philosophers undertook at that time was that of making sense of this new social system based on the purchase and sale of human labor-power that had replaced the feudal system based on serfdom and sharecropping. While making sense of and justifying the new system they had at the same time to make nonsense of and undermine the justifications that had been offered for the old within the theological framework of thought that had dominated the Middle Ages. We will look later at how they did this by calling on the emerging natural sciences and substituting 'Nature' for 'God' in their would-be 'secular' account of things. At the same time the justifications of the new institutions and practices were based on the presentation of them as 'natural'. Rather than being 'ordained by God' as the institutions of feudalism had been justified by the theologians. The new institutions were presented as being 'ordained by nature' - i.e. as 'natural'. Our argument will be that in projecting their purported entity called 'Nature' outside the material world as an immaterial entity supposed to impose its 'Laws' on material things, the philosophers did not so much secularise the previous framework as deify their concept of 'Nature', and at the same time generated mysteries that have infected subsequent discussions.

Marx set about dismantling this world-picture in order to show that it inverted reality in its project of making eternal sense of and justification of the social and political system that had been generated by the particular historical economic relations that had displaced the feudal. His aim in this was not the purely intellectual one of seeking truth but that of revealing the destructive distortions of our conception of humanity that lay at the heart of the system itself. His aim was to be clear about what had to be rejected and what had to be put in its place in order to give us a system that would do justice to our humanity and not damage both sides of an inhuman class divide. Bringing out the

inversions and contradictions of the bourgeois ideology will help us to clear the fog from our eyes so that we can move forward to a system that does justice to our humanity. And that humanity will itself have to be better understood so that we can see that humans are social beings at root and in origin and not the mutually antagonistic individuals depicted in the individualistic framework that took the natural state of humanity as 'the war of all against all'. We need to see that the flourishing of the human race depends on replacing the basically antagonistic relations ('It's *mine!*') generated by a social system founded on private property. Human creativity has also to be released from the bonds imposed by the system of buying and selling of the human capacity to work – a system that amounts to the extension of the notion of a commodity to encompass that productive capacity which defines us as humans and lifts us above the rest of animate nature. We also have to clear away the intellectual fog that allows human artifacts and the products of human practices to be dressed up and presented as transcendental entities that confront us from afar.

The picture we have to dismantle puts an immeasurable distance between humanity and nature by deifying nature and setting it above the world where humans can only contemplate it in awe. Humanity is made passive not only in relation to this transcendentalized conception of nature but also to something given the title 'the external world' from which we are pictured as receiving signals called 'sense data'. From these we are meant to assemble a picture of this 'external world' together with something called 'the laws of nature' which were supposed to govern it from their heavenly non-location. It is not good enough simply to point out the ways in which this world-view was shaped by the fact that it was aimed at replacing the theologically based framework that had dominated thought in feudal Europe. We have to go on to a closer analysis to bring out the emptiness and incoherence those imagined transcendental entities that were posited in the pursuit of the program of finding secular

alternatives to God as foundations in this new framework aimed at making sense of and understanding the world in what they thought were secular terms. We will argue in Chapter 2, 'The Concept of Nature Its Mystification and Demystification' they simply produced a deified concept of nature and not a secular substitute for God. Their enthusiasm for generating these transcendental entities was the result not only of that general program but also the result of their being held captive by a conception of causation and of explanation that required them to be beyond the reach of history.

Humanity has been represented as passive in other ways too – the most extreme being the utter passivity awarded us by the deterministic system of mechanical materialism. This claims everything we do is the result of physical causes, internal or external. Purposes, aims and goals have no place in this picture. Another way humans are presented as passive is by being awarded something called 'human nature' which is something supposed to be laid on us from outside – by God in Special Creation, or else by evolution. Whatever the source, humanity is not allowed any part in its formation.

And, we should note that the human nature awarded us by Hobbes and the Social Contract theorists generally puts humans on a lower level than those animals that hunt or travel in packs or herds. From this supposedly 'natural' state of us humans described as 'the war of all against all' the Social Contract was supposed to rescue us and turn us into social beings - in a story that nobody could believe. This elevation of the individualistic state of people in a particular culture at a particular era when private property was a major determinant of social relations into the 'natural state of humanity' would make impossible the transition 'from herd to tribe'. If it really represented 'human nature', that mutual antagonism would have made impossible the transition from pre-social to social beings. Since this transition actually occurred we obviously have to consign that conception of 'human nature' to the bin of history.

So much for Hobbes' view of 'human nature' – though we can say on his behalf that he seems to have had some sense of, and gave expression to, the class antagonisms that had their origin in the new capitalist social relations brought in with the bourgeois revolution. His mistake was to conceive those antagonisms as necessary and eternal. Those fundamental antagonisms did not exist in the tribal societies of our ancestors and with luck they can be eliminated in some better form of society. They are not historically necessary - and this is the overwhelmingly important lesson we have to learn if our history and our social arrangements are to do justice to our human creativity and to our essentially social human nature.

We also have to deal with the philosophic individualism spawned by this picture, since its fundamental premises that humans are by nature individuals who are in principle able to attain maturity and full knowledge of the world without benefit of association with others. This picture has an unreality that is hard to credit. Hobbes, for example, describes language as 'convenient' because it allows different individuals to compare notes and thus advance farther in their understanding of the world than they could have on their own. This involves the idea that isolated individuals without language or the society of others are capable of full knowledge of the world.

We would simply laugh at the unreality of this inversion of the truth if it hadn't lain at the base of, and generated the insoluble problems of the empiricist program that has occupied generations of philosophers. The empiricists set themselves the impossible problem of giving an account of how each individual on the basis of her or his natural endowments of sense and intelligence could come to knowledge of the world without benefit of the social advantages of language and

learning from others¹. The only use that can be got out of an examination of all this wasted effort is as an illustration of the blind alleys one can be led into if one does not carefully examine the premises of the projects one embarks on.

The chief of these is the founding dogma of empiricism that the senses are original endowments that are given to each individual in all their fullness and confer the capability of constructing a knowledge of the world without the need for contact or cooperation with others. Simple empirical observation could have shown those empiricists the falseness of this assumption and that the senses are subject to historical development both in individuals and in cultures. I remember being taught (with difficulty) to hear octaves and the intervals 1,3,5,8 in the octave scale – something which people from another musical culture – say, China or Indonesia, would not be able to do (though they could, with greater difficulty be taught) because they do not work with our octave scale. And I have often used the example of native speakers of Japanese, who cannot hear the difference between the sound of the letter ‘R’ and the letter ‘L’. Again, they can be taught to hear that difference – but only with difficulty.

Not only are there differences among the different cultures in the world in what they can see, hear, feel, taste and smell, but the members of different occupations, trades and professions learn to see and hear things that others without their special training cannot. But the empiricists were blinded to these facts by their commitment to the necessity of showing that each human individual is endowed by nature with all that is necessary for them to come to a complete knowledge and understanding of the world. This was a dogma of the philosophic

¹ Wittgenstein has shown the impossibility of language for an asocial being in his ‘private language argument’. I have discussed this issue in Chapter 9, ‘Language and the Society of Others’ in my book *Philosophy and Mystification*. (1996 Routledge, and 2003, Fordham University Press paperback.)

individualism with which they started and was intended to show that human individuals had no essential need to be social or linguistic. This in turn was the legacy of the Social Contract theory which started from the premise that humans are individuals first and social beings only later. But this whole picture generated an empiricism that was founded on a proposition that fairly common observation could have shown to be false. However we need to notice that it all was taken on board at a time when people believed in Special Creation and consequently in a fixed and universal 'human nature' lying at the bottom and explaining all things human. In the final chapter we will look at the way in which the philosophers of the 17th century were held captive by the situation of their time – the impossibility of a real historical perspective and the conception of the serious tasks facing them.

One of our chief tasks here will be to turn this picture of a passive, but at the same time anti-social, humanity on its head and let the nonsense run out of it - so that we can see that the essential nature of humans is to be social, active productive and reflective and therefore subject to historical development. We need to show in addition, that none of those characteristics can have been imposed on our species from outside. We will have to show later, in 'Creating Creativity', (Chapter 5) and 'Purpose and Purposiveness' (Chapter 6) that neither evolution, nor God Himself could have made us into purposive or social beings and that the impulse that brought about the transition of our ancestor species from herd to tribe - from animal species to race of social beings, that impulse had to come from within humanity itself. Even though natural selection (as well as sexual selection) set up the conditions for that transition, it could not have been the motor for it. In the end, it will be argued, humanity had to create itself by becoming social creatures with all that followed from that new state.

Then we will have to show that nature is not something separate and eternal located nowhere, and in that way beyond the reach of us

concrete, located humans. That picture also has to be turned upside down if we are to understand anything at all. No sense can be made of that picture of a 'Nature' that is separated from humanity and from the material world and set in some transcendental space where it is pictured as 'reigning over the world' and through the 'Laws' attributed to it explaining the regularities we find. We need to see that those regularities are not to be *explained* at all – simply recorded and made use of by us – though we should add that those regularities are kept in being and guaranteed by those classifications we make, especially when they are incorporated into the language of our culture. Sugar is guaranteed always to be sweet because if it isn't sweet we don't call it 'sugar'. And we need to add here a question that will answer those who think we need to thank heaven (or Nature) for the regularities we recognize and work with. That question is whether a universe is even conceivable in which it would not be possible to find regularities?

It is certain that the abstract concept of Nature cannot do the explaining of those regularities because we cannot make any sense of the idea that its 'Laws' can have any causal relation to the material world. We can make sense of the notion of nature only by following Aristotle and seeing it as a *record* of the regularities we find and work with and in no sense a *cause* or *explanation* of them. The attempt to elevate it to the status of cause, *explanation* or *guarantor* of those regularities ends in nonsense. We will deal with that further below. Our aim will be to show that abstract and transcendentalized concept to be an empty one with no substance and no function.

To get out of all this morass we need to revert to the Aristotelian conception of nature (*physis*), which is simply a record of regularities. And we will deal with the question of how those regularities may be guaranteed to continue when we look at how they are noticed and incorporated into our system of classifications and our various human

languages. Of all this, more later (particularly in Chapter 2) when we will set about showing how the old problem of 'the uniformity of nature' is a non-problem generated by an impossible search for foundations and ultimates that are supposed to stand on their own.

We will also show that the only ultimates and foundations of knowledge that need no further support are human practices. In that connection we will expand Newton's appeal to human practices in founding geometry in: 'Newton, Marx and Wittgenstein' (Chapter 7). If human practices can be allowed to found geometry, they can obviously be allowed to found pretty well everything needing a foundation. Human practices obviously do not come out of the air but out of human life and interaction with the world, but at the same time they are not 'founded' in the sense the searchers for foundations are looking for. Apart from human practices, only God manages without further foundations – though one could say that his role as foundation of everything is itself founded in faith. Back to practices!

Now down to dismantling the ideological world-view that hides our creativity - not in the light of a change of social system that has already happened as in the 17th century dismantling of the theological world-view, but in the light of hopes of a new one that may arise, once we humans accept our own creativity.

But we must first pause to make clear that the above discussions do not amount to a rejection of religion itself but only a rejection of the distorting misunderstandings of its place in human life that have contributed to the false conception that religion and science were in competition. This misunderstanding is best illustrated by the early attempts to use the Bible to prove that the Sun revolves around the earth and to suggest that angels are responsible for what, from that perspective, looked like the irregular movements of planets. The Creationists continue the bad work in our time, demeaning the Bible by offering it as a quasi-scientific theory of the origin of species in rivalry to

the theory of evolution. It is not the business of the Bible to offer us theories or explanations of such things and to see it in that way is to degrade it. Though it will be all too easy to read some of the following discussions as somehow opposed to religion and a religious take on the world, this is not their aim at all. Their aim is rather to become clearer about the entirely different role of the secular and religious understandings of the world in human life. We don't turn to the Bible to learn how to generate electricity and we do not turn to cryogenics at a time of loss or to learn how to live our lives. Only confusion is produced by setting the two up as competitors and my aim has been to try to deal with some of the confusions that have been generated by letting either intrude on the territory of the other.

But the 16th century theologians' wrongheaded attempt to use the Bible as a guide to astronomy is only one side of the mistaken view that the sciences and religion are competitors for the same territory. The other side was provided by the philosophers who created the deified conception of Nature as a transcendental entity that stood outside the world and imposed its 'laws' by powers more mysterious than God's. That confusion which turned the sciences into 'the theology of Nature' is discussed in Chapter 2. And some cosmologists have got their subject so confused with theology that they think it can answer the question, 'Why is there something and not nothing?' The 'Big Bang' is offered to us as 'the origin of the Universe' and that supposedly means that it was the transition 'from nothing to something'. But if we ask, 'What went 'Bang!'?' – the answer can hardly be, 'Nothing'.