

Awe and Humility: Intrinsic Value in Nature. Beyond an Earthbound Environmental Ethics

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This paper will argue for a conception of intrinsic value which, it is hoped, will do justice to the following issues:

- (1) that Nature need not and should not be understood to refer only to what exists on this planet, Earth;
- (2) that an environmental ethics informed by features unique to Earth may be misleading and prove inadequate as technology increasingly threatens to invade and colonize other planets in the solar system;
- (3) that a comprehensive environmental ethics must encompass not only our attitude to Earth, but to other planets as well—in other words, it must not simply be an Earthbound but virtually an astronomically bounded ethics.

I

What is unique about Earth? That it has water and an atmosphere which supports life. Its atmosphere preserves a constant 0·03% of carbon dioxide, 1·7 ppm of methane, 21% of oxygen, 79% of nitrogen, a surface temperature of 13°C. Water covers roughly two thirds of its surface. By contrast, planets like Venus and Mars which have no life and no water (at least today) have no methane either, but respectively 96·5% and 95% of carbon dioxide, 3·5% and 2·7% of nitrogen, a mere trace and 0·13% of oxygen, and surface temperatures of 459°C and -53°C (see Lovelock, 1988, p. 9).

Looked at from outer space, Earth is a dappled white and blue sphere. On the other hand, Mars is uniformly red. Life on Earth originated in its waters. And today, life is found in them as well as on land.

II

Environmental ethicists are divided along two main axes—anthropocentrism/non-anthropocentrism on the one hand and individu-

alism/holism on the other. Those who argue that not only humans but Nature may have intrinsic value, may be said to reject anthropocentrism, at least in its strong form. But whether these non-anthropocentrists approach the matter *via* the individualist or the holist perspective, they appear to agree that (a) a distinction between biotic (animate) and abiotic (inanimate) Nature is crucial; (b) a conception of intrinsic value in Nature is intelligible only with regard to the former (Taylor, 1986; Attfield, 1991; Johnson, 1991); (c) it is deeply problematic to argue that abiotic Nature could have intrinsic value.¹

As a result, regarding (c), they tend either to ignore it or to marginalize it by simply acknowledging that, fortunately, because biotic and abiotic Nature are so inextricably involved with each other, as a matter of fact, the former cannot be divorced from the latter. As such, if biotic Nature could be said to have intrinsic value, so may abiotic Nature also be said to possess it. But Johnson, who does grapple with the issue explicitly, is driven to the brink of reintroducing strong anthropocentrism by the back door: 'Perhaps there are some things *it is better for us* that we value for their own sakes' (Johnson, 1991, p. 282, italics added).

The focus on biotic Nature is quite understandable given that organic life is unique to Earth (at least as far as we know today). If environmental ethics were to be confined to this planet alone, there would be no need to agonize too much about the problem of abiotic Nature becoming divorced totally from biotic Nature and/or whether the former thus divorced could be a locus of intrinsic value.² But unfortunately, increasingly, such intellectual and ethical *angst* is not an optional extra. To appreciate the urgency of the matter, let us turn to the project of 'terraforming' Mars (see Hawkes, 1993 and Whitehouse, 1993).

III

Mars does not look like a promising alternative habitation for humans. But it is the most promising, nevertheless, of all the planets in the solar system. Technology could eventually make it habit-

¹ One notable exception is Rolston. Although he does not touch on the matter in Rolston, 1988, he has addressed it in Rolston, 1986b. Indeed, all the issues related to environmental ethics and the solar system are given an airing in Hargrove, 1986. (I wish to thank Professor Rolston for kindly drawing my attention to this.)

² See Callicott, 1986, for the distinction between the source and locus of values.

able. The programme for transforming Mars into imitation Earth looks somewhat as follows:

(i) First raise the temperature (from -53°C) by pumping greenhouse gases into its atmosphere, releasing chemicals which are already present in the Martian crust by using small nuclear reactors. These gases will then trap the Sun's heat.

(ii) Its frozen polar caps will start to melt as they absorb the heat. Genetically modified plants could be spread over them.

(iii) Positive feedback would next ensure that as the atmosphere gets thicker it gets warmer, and as it gets warmer it gets thicker.

(iv) A century later, nitrogen, carbon dioxide and water would appear. The colour of the sky would change, from pink to pale blue, then to royal blue. Pressure would be half that on Earth. After that, rain would fall. There would be large oceans though not yet salty ones.

(v) Different types of vegetation would take root—first tundra, then evergreens, as soil emerges.

(vi) After another century or so, perhaps the plants together with the atmosphere processors (Mars has abundant iron oxide which could be mined and heated to release oxygen) would generate sufficient oxygen to produce a breathable atmosphere for humans and other animals.

IV

This paper addresses itself to several related issues raised by the 'terraforming' of Mars.

1. Earth has intrinsic value because it has organic life. Its intrinsic value places constraints on human exploitation of Nature to suit our own ends. But Mars has no organic life and, therefore, it follows, no intrinsic value. As such, it has, at the moment, only (potential) instrumental value for humans who can choose to do with it as they please, including 'terraforming' it.

2. As organic life has intrinsic value, although producing further life is not a moral duty (unlike protecting existing life), it may be morally permissible to do so, at least under certain circumstances, such as rehabilitating areas that have become deserts or undergone other forms of degradation. But if such permission obtains on Earth, why not on Mars?

Moreover, given that humans have destroyed so much life on Earth and continue to do so, the moral permission could even become a duty by extending the principle of restitutive justice advocated by Taylor. By 'terraforming' Mars, one would be com-

pensating biotic Nature on Earth for the damage humans have done to it, providing such replication of life on Mars is not meant solely as a further economic resource for humans.

3. But if 'terraformation' is to be rejected out of hand either as moral permission or duty, then one must develop a conception of intrinsic value which is not necessarily tied up solely with the fate of biotic Nature. This means that an environmental ethics, which is not Earthbound but capable of defending other planets against human control and domination, must confront the issue of abiotic or inanimate Nature as a locus of intrinsic value.

How can this task even begin? This paper will attempt to do so by first of all, ironically, outlining a conception of intrinsic value for Earth and extrapolating from it to Mars (or other planets), without being distracted, it is hoped, by the fact that organic life is indeed unique to Earth.

V

Such a conception of intrinsic value for an Earthbound environmental ethics would rest on the following considerations.

1. Earth (Nature) did not come into existence and/or continue to exist to serve human purposes. In this sense there is no teleology. Instead, there are teleomatic processes in abiotic Nature which simply follow physical laws, such as the law of gravity and the second law of thermodynamics (like the cooling of a heated piece of iron). In biotic Nature, teleonomy is at work—organisms display programmed behaviour, the programme being the product of natural selection (Mayr, 1988).

2. Humans, of course, find parts of Nature useful as food, clothing, shelter, etc., just as nonhuman life forms find other parts of Nature of use to them. Plants (autotrophs) can make use of abiotic Nature to sustain their own functioning integrity and in this sense, the carbon dioxide, minerals, water, heat and light from the Sun, etc. have instrumental value for the plants. But it would be misleading to say that abiotic Nature exists for the purpose or goal of keeping plants alive. Similarly, for an insect, the leaves of plants have instrumental value but it would also not be correct to say that plants sustain their own functioning integrity in order to be of use to insects. Neither can it be said that plants and animals exist for the purpose of keeping humans alive and flourishing although they, clearly, have instrumental value for humans. (Call 1 and 2 above the No-Teleology Thesis.)

3. It is obvious that: (a) The genesis of Earth is independent of

humans. It happened 15 eons ago. The genesis of life on Earth is also independent of humans. It happened at least 3·6 eons ago during the Archean period (4·5 to 2·5 eons ago) when the chemistry of the atmosphere was first dominated by oxygen. Humans arrived on the scene only 100,000 years ago. The history of natural evolution is a very long one indeed. (b) Earth and its biosphere would not be extinguished should humans themselves, for some reason, become extinct as a species. As far as the biosphere is concerned, the disappearance of the human species cannot be said to threaten it. Should human extinction happen, the niches formerly filled by humans will be taken over by other existing species as well as very probably provide opportunities for new species to emerge. The continuing existence of Earth and its biosphere is clearly, in this fundamental sense, independent of humans. (c) Moreover, the capacity of the biosphere to function integratively and well is also independent of humans. (d) In other words, the Earth and its extremely complex biosphere are fully autonomous. 'Autonomy' is here used to mean no more and no less than its ability to exist, to function integratively and well without any reference to, assistance from or reliance on humans. (e) From the perspective of biospherical integrity, humans are, therefore, dispensable and could even be redundant. (Call this the Autonomy Thesis.) However, this should not be taken to deny that humans today can damage such integrity.

4. The above shows that there is a distinct asymmetry of causal dependence between humans and Nature. While humans depend on Nature and cannot exist if it were absent or if its functioning integrity were to be upset by humans, Nature's own existence and functioning integrity is independent of human existence. (Call this the Asymmetry Thesis.)

VI

A proper reflection upon the Autonomy and Asymmetry theses would enable one to see that human arrogance and superiority towards Nature are totally misplaced. Humans are, indeed, capable of an exceptionally sophisticated level of abstract thinking, which we have used in the last 250 years or so to develop ever-increasingly powerful technologies to appropriate Nature for our own ends, far exceeding the capacity of any other life-form to do likewise. This gives us the illusion that Nature is entirely under our control, at our disposal and ought to be so. But human superiority lies in another direction—in our cognitive capacity to understand the complex workings of Nature, our critical capacity to construct theories and arguments and to test and assess them, and our

ethical capacity for responsibility, for assuming duties towards those which themselves have no conception of the ethical.

From our cognitive engagement with the world, we know that causes and effects in the biosphere are nonlinear, leading to complex interdependence between its parts, and that our increasingly powerful technology produces effects which can and do upset its delicate functioning integrity. Such understanding could be deployed critically to show that a revised ethical attitude to Nature is called for—not one of arrogance and domination but of awe and humility.

Humility is appropriate in view of the Asymmetry Thesis—our absolute dependence on such an intricately complex system whose existence and maintenance are essentially independent and autonomous of us. Humility is the opposite of arrogance. To be arrogant is to behave in a superior dismissive manner towards the Other. Enlightenment philosophy might have encouraged humans to feel superior as it teaches that humans are so clever that they can control Nature through science and technology. But as we have seen, Nature's genesis, its continuing existence, its functioning integrity are fully autonomous of humans. No one can justifiably feel superior to another if the Other is not dependent on oneself.

Through arrogance, humans have assigned themselves a privileged status amongst Nature's species. But as far as evolution is concerned, no one species is privileged. If humans from their mistaken exalted position were to continue to act in ways that would undermine Nature's functioning integrity, the results could be such that the last laugh, so to speak, would be on us, humans. We might find ourselves eliminated, while Nature itself might reach a new and different equilibrium.

From this perspective, humility is justified both from the standpoint that Nature has intrinsic value and from the wider human instrumental standpoint that flows from the asymmetrical relationship. However, in this context, the instrumental consideration does not stem from arrogance or strength, as it does under strong anthropocentrism. Instead, it stems from a position of dependency and hence weakness. It, therefore, highlights the frailty and the limitations of humans before Nature.

In its presence, we humans should be filled with awe, that is, with reverential fear and wonder. Wonder is called for as the thing we behold is so marvellous and remarkable. And reverential fear, because not only is Nature a marvel but also because it has power over us, as on it our very existence depends.

Awe and humility would then dictate that we should maintain a respectful distance from Nature. We should be careful not to make

excessive demands of any kind upon it, not only those to sustain ever-increasing consumption but even those which express our 'love' for it. Environmental ethicists often invoke the language of love in their account of our attitude to Nature. But Earth is not necessarily a suitable object for humans to love and to cherish, but a presence before which we should be humble and stand in awe. The concept of love, admittedly, is not totally inappropriate to characterize the human attitude to Nature—for instance, to love something is to care about its well-being even after one's own demise. This aspect is in keeping with Nature possessing intrinsic value. But there are other implications of the concept which are not so congenial to the view of Nature as a locus of intrinsic value—for instance, Nature could be loved to death. To love an object involves wanting to be with the loved object. But too many lovers communing with Nature (or a particular part of it) could damage, indeed, even destroy it.

Similarly with cherishing an object. Cherishing implies the desire to protect the cherished object from damage. But it can also imply mollycoddling it to ensure that it does not deteriorate and decay. In other words, what one cherishes, one wants to remain forever unchanged. But this would be incompatible with the workings of Nature whose processes inherently involve change.

Nature has its own pace and rate of change. Awe and humility would ensure that humans respect its rhythms and not force it to change at a pace dictated solely by our requirements. Otherwise its functioning integrity could be undermined. Subversion of Nature is to be deplored not simply from the instrumental perspective that we cannot survive and flourish without it, or do so less optimally with an impoverished Nature. It is also because Nature is fundamentally independent of us.

VII

To summarize the arguments so far advanced. This conception that intrinsic value exists in Nature, which implies that our appropriate attitude to it should be one of awe and humility, and our appropriate behaviour respectful and cautious, also requires us to acknowledge three fundamental truths:

I. The No-Teleology Thesis—that Nature exists for itself and not for us humans, just as we humans exist for ourselves and not for Nature. If we consider ourselves as a locus of intrinsic value because we are entities who exist for ourselves, then consistency would lead us to conclude (in virtue of our critical capacity) that

Nature as a whole and the various items in it, too, are loci of intrinsic value for they, too, exist for themselves. This, however, is not to deny that what has intrinsic value in this sense may have instrumental value, as a matter of fact, for another.

II. The Autonomy Thesis—if an entity exists for itself, not for us, and if its genesis, its continuing existence and survival, are independent of us, then we ought to recognize that it has a value independent of us. In turn, we ought also to recognize that we have a duty (in virtue of our ethical capacity) not to undermine or destroy such a thing of value.

III. The Asymmetry Thesis—our total dependence on Nature but Nature's independence of us—reinforces the Autonomy Thesis and emphasizes the view that Nature has value which is entirely independent of us.

Such a conception of intrinsic value in Nature highlights the contrast between Nature on the one hand and human artefacts on the other. It has already been observed that the former's genesis, existence and functioning integrity has nothing to do with human purpose or effort. Human artefacts, *ex hypothesi*, are designed and created for our purposes and maintained by us in order to continue serving those purposes. They owe their *raison d'être* and existence to us. In other words, they are our creations. We can do with them as we like. In the ultimate scenario of the the Last Person Argument, there would be nothing morally wrong to arrange for them to be destroyed, as they have been created entirely by humans for humans. Even the most beautiful, exquisite or complicated human artefact, like the Pieta, the Alhambra or a nuclear power station would have no value when there are no humans around, as the totality of its value is generated and determined by us humans. Artefacts exist to be of use to us, to please, amuse or delight us, to elevate or inspire us.

However, one needs to distinguish between true human artefacts and quasi-human ones. The former are made out of inanimate Nature and in any case, even without planned destruction, they would decay, sooner rather than later, in the absence of human maintenance. The latter are fashioned out of animate Nature, like our domesticated animals, plants and ecosystems. Under the Last Person scenario, one should argue that these ought to be left alone. Of those which could survive, *ex hypothesi*, they would have become totally independent and autonomous of humans.

It bears repeating that Nature has not come into existence to be of use to us, to please, amuse or delight, to elevate and inspire us, although as a matter of fact we humans have undoubtedly found Nature useful, pleasing and/or inspiring. In brief, Nature is sim-

ply not a human artefact and, therefore, ought not to be treated as such. It is not there at our bidding.

From this standpoint, it would be a mistake for environmental theorists to argue that our attitude to Nature should be like our attitude to art. On this view, Nature is a work of art—we hold it dear and ought to cherish it because, like art, it is a beautiful thing. But art is quintessentially a human artefact. The analogy between Nature and Art may turn out to be fundamentally misleading. It makes Nature out to be like a human artefact, when obviously it is not, but is a distinct contrast to the very idea of Artefact itself. Essentially Nature is beyond human creation and design. It is, therefore, wrong for humans to distort the nature of Nature, to render it into a quasi-, if not a true, artefact.³

As hunters and gatherers, humans had appropriated Nature for their own purposes. But they only seriously began to modify Nature and turn it into quasi-artefacts when they became sedentary. The domestication of plants and animals is a supreme instance of such modification. But such attempts have been locally confined and limited, unlike contemporary techniques which can and do have totalising effects in turning the whole of Nature into a quasi-human artefact.

VIII

At the moment, the 'terraforming' of Mars is still very much a blueprint, although institutions like NASA would be more than eager to pump immense sums of money into its R&D, if only they could persuade the politicians to approve the funds. The project embodies the ultimate philosophy of transforming Nature into Artefact. Mars would be designed and moulded by humans to our taste, preferences and requirements. Right now it has no life; but it shall have life. And what sort of life? The sort that we know about, find useful or pleasing or, indeed, even beautiful.

Holmes Rolston is quoted as saying that 'terraforming' Mars would amount to an environmental crime (Hawkes, 1993). One could readily agree with his response. But on what grounds can we resist the project as a morally misplaced one?⁴ One way of grounding the resistance would be to argue that Mars has intrinsic value. So let us see if the conception of intrinsic value outlined above for

³ Other life forms also create artefacts—bees build hives, birds nests, beavers dams, etc. But they make them to fulfil a very specific and limited need. When they have outgrown their creations, they simply leave them to disintegrate on their own.

⁴ For Rolston's own arguments, see Rolston, 1986b.

an Earthbound environmental ethics can be applied with modification to do duty for an astronomically bounded one.

As already argued, that conception rests on three strands—the No-Teleology, the Autonomy and the Asymmetry theses. Would these hold in the case of Mars? It is not obvious that they do not. For a start to say that Mars exists to serve human ends is more patently implausible than it is to claim that Earth does. Humans at least exist on Earth and have been evolved to do so. But Mars has no humans. Instead, with our advanced technology we threaten to, and probably could, transform it into an object of use to ourselves. But this possibility of instrumental value does not undermine, in any way, the contention that its *raison d'être* has nothing to do with human ends. It exists for itself, no more and no less. It is both an illusion and a fallacy to hold that whatever we humans happen to find useful, in the light of our technology, must have come into existence just for the purpose of serving our ends—or that its existence is to be justified solely in terms of such a purpose.

The genesis of Mars long antedated the appearance of humans on Earth. Its continuing existence has nothing to do with humans. What happens there is totally independent of us. It might once have had water (as is speculated) but today it is said to be waterless. But neither state of affairs is due either to human effort or design.

Earth's atmosphere, its biosphere upon which human survival and flourishing depends, in turn depend on Mars and other planets in the solar system rotating and exerting gravitational pull on one another in certain ways. So while the existence of humans depends on the existence of Mars, the existence of the latter would not be affected should humans, as a species on Earth, become extinguished.

Awe and humility would then be the appropriate attitude to Mars. Keeping a respectful distance from it is also entailed. However, satellites sent to probe its history, its composition, etc. merely to enlarge our knowledge about the workings of Nature, past and present, would be consonant with such an attitude. But any attempt to go beyond cognitive understanding would constitute a violation of our recognition that it has a value entirely independent of ourselves which ought to constrain any impulse we may have to make it over to our own design, to transform its status as Nature to a status as Artefact.

Looked at in this way, the fact that Mars lacks life—that it is inanimate, abiotic Nature—is irrelevant to the question whether it has intrinsic value. The conception of intrinsic value outlined does not rely on biotic Nature to give abiotic Nature the status of being a locus of intrinsic value. It happens that on Earth abiotic and

biotic Nature are inextricably linked. But with Mars and other planets, a divorce between the two has to be directly confronted. In constructing an astronomically bounded environmental ethics, the uniqueness of Earth's biosphere should not make it altogether impossible to lay down a general framework for an account of intrinsic value which in one sense transcends such a feature. At the same time, such a general framework also permits a focussing on this feature when one is merely concentrating on the task of constructing an Earthbound environmental ethics. That general framework turns out to be bounded by the No-Teleology, the Autonomy and the Asymmetry theses.

IX

Potential critics of this conception of intrinsic value which claims to be able to cope with animate and inanimate Nature when both are inextricably intertwined as on Earth, or with the latter when it is divorced from the former as on Mars (and other planets known to us), could complain that it involves a purely verbal manoeuvre.

After all, it is open to anyone to define any term however one likes. But such definitional flexibility is bought at a price as others have no (conceptual) obligation to accept the definition proffered. This paper has advocated a particular definition of the term 'intrinsic value', namely, (a) whatever is autonomous and independent of humans both in its genesis and continuing existence has a value independent of humans; (b) whatever is autonomous and independent of humans is not there primarily to serve human purposes and ends, and therefore exists for itself—although humans may and do, as a matter of fact, find it is of use to them.

It presupposes that the existence of any material entity which is independent of human design and effort has value. Is this so arbitrary an assumption to make? It may look arbitrary but only from a purely homocentric standpoint which assumes that humans are not merely the source but also the locus of all values (see Callicott, 1986). The Last Person Argument may be invoked deploying Callicott's distinction⁵ to articulate the possibility that even abiotic

⁵ Someone could object that Callicott's distinction cannot be deployed in the context of the Last Person Argument on the grounds that a world without human consciousness is a world without values. But this would not be correct. The last human in contemplating the annihilation of Nature after his or her own demise would be morally prevented from doing so because such a person would recognise that Nature is a locus of intrinsic value.

Nature, divorced from its biotic counterpart, can possess value through the response that it would not be morally permissible for the last human to destroy a lifeless planet should the technology to do so be available.

Is such a response no more than a mere intuition? If not, it must rest on the recognition that Mars has a value which is totally independent of humans. And it seems appropriate to call such a value 'intrinsic value', as it is not bestowed on it by humans and would exist regardless of whether humans exist or not. The issue must not be turned into a verbal matter—if it is felt that the term 'intrinsic value' in this context departs too much from its normal usage, then an alternative term could be used, such as 'human-independent value'. The substantial point can still be made that such a human-independent value could place moral constraint on the human aspiration to transform Mars from Nature into Artefact.

It is assumed that there are only three possibilities as far as abiotic Nature is concerned—(i) that it has (economic) resource value for humans, (ii) that it has psychological or aesthetic value for humans, and (iii) that if neither (i) nor (ii) obtains, then it must be valueless as it cannot have a value independent of humans. But all three views stem from strong anthropocentrism, presupposing that humans are both the source and locus of value. Such a standpoint entails that either Mars has potential instrumental value for humans or it is valueless.

However, we have seen that even a non-anthropocentric perspective which is biocentric does not make it conceptually possible for one to say that abiotic Nature has a value which is independent of biotic Nature itself. Such a perspective allows for only two possibilities—either (i) abiotic Nature has instrumental value for biotic Nature or (ii) it is in danger of being valueless. It follows from it that Mars is valueless since it supports no biota. It is true that organic life has an identity and even a self-identity (in some instances) which it strives to maintain and sustain. But inanimate Nature only has an identity, the persistence or the undermining of which is determined entirely by teleomatic processes, as Mayr has pointed out. There is stability and there is change, but these are not governed by teleonomy as they are in biotic Nature. But it would be 'biocentric chauvinism' to say that abiotic Nature is valueless unless it has instrumental value for biotic Nature.

From the perspective advocated by this paper, it is human and biocentric chauvinism which are arbitrary when they both assume that whatever is of no instrumental value to humans and biota are necessarily valueless. Humans, animals and plants (or the ecosys-

tems they are embedded in) strive to maintain their integrity and hence display end-directed activities. As a result, they may be said to possess interests. *Ex hypothesi*, abiotic Nature does not possess interests at all in the sense just mentioned. To define 'intrinsic value' in terms of interests will entail that abiotic Nature has no intrinsic value whatsoever, and hence is valueless, once any possible instrumental value for humans and biotic Nature has been ruled out. Such a definition could begin to look a shade arbitrary when its anatomy is laid out for examination, so to speak.

If either definition looks suspiciously like a case of special pleading, then perhaps it is proper to concede that the last word has not been said about the matter and that it is time to look seriously at the issue of whether abiotic Nature can be said to be a locus of intrinsic value and in what sense of the term 'intrinsic'.

...and when one starts to point, the angle from which he points is bound to reflect his region. In the same way, when we look about without self-concern, each of us does undoubtedly see something in some sense the centre of the world. ...
...parallel is often helpful to another can only make a difference importantly over the whole arena. ...
...is not necessarily, but since we are finite beings, we are necessarily limited. We have no choice but to live especially close to ourselves and those closer to us. As Bishop Butler says, 'The kind of practicals we necessarily lead thereupon, are such as we do truly and care for ourselves properly; if we do them through self-love, or if we despise or hate ourselves, or other people. The trouble with human beings, however, is that they love themselves too much, and care for themselves more. The trouble is simply that they do not care for others enough' (Butler, 1980, p. 22).

In this sense, the motto 'self-must be the centre' is not only good and according to the spirit, but also carries with it a quite good meaning. It was coined by the French author Georges Courteline in 1895. He would be fond of the motto 'the secret of happiness'. Now at last he would be happy, interestingly, however, in this usage of 'self-must be the centre' he added after 'self' the words 'and others'. Thus the German philosopher Immanuel Kant, writing *Practical Philosophy* in 1793, said: '...the true man does in a very true sense, in the