

Ethics and objectivity: the case of global warming

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Abstract

As scientists, we endeavour to be *objective* concerning whether there is anthropogenic climate change, and if there is, about how significant it will be. But what we ought to *do* in the face of these findings, is an issue of ethics not science. Question: is there any sense in striving to be objective about *that*? Answer: emphatically, yes there is. Indeed, a call to be objective in the moral sphere is in its way original to the very possibility of science.

Introduction

Reason demands that we strive to be objective. To be reasonable is to endeavour to rise above the plane of mere personal conviction. The aim instead is to achieve an impersonal ideal. If a conviction is merely personal, it is inevitably blinkered, and at best only imperfectly rational. Reason demands that we strive instead for the all-things-considered, *rationality most harmonious* way to think and be. Reason demands, in other words, that we get out of ourselves, and rise *in our thinking* above the plane of mere personal conviction, as well as *in our actions* above mere personal desires. The emblem of success in this is objectivity.

Science is a collective process that progresses us towards ideal thinking about matters of fact. Such inquiry begins when people ask questions. The questions reflect presuppositions. Inevitably such presuppositions begin blinkered and without much rational ground. But science discovers such defects and endlessly corrects for them. The thinking of inquirers progresses through their widening ever further the empirical considerations that have been brought to bear, and from the role of reasoning becoming ever more concerted and refined. This is a powerful way for people to make their thinking progress towards truth.

Scientists often suppose that only in science does the demand for objectivity make sense. In particular, an ethical stance seems to them too personal and too subjective to be exposed to a like demand. Scientists are apt to think, wrongly, that objectivity in ethics is a contradiction in terms.

In fact most who think this way are at least somewhat schizophrenic about it. Question the reasonableness of their ethical convictions and you immediately hit a nerve. If you can convince scientists to discuss their ethical convictions, then they will impress on you their reasons for thinking as they do. Rounding on your point of view if you disagree with them, they will aim to show that your view is blinkered or unreasonable. They will defend their own stance as the more objective and so rationally defensible.

Ethics, like science, is a species of cognition. In fact, we would be quite incapable of scientific cognition if we were not first fully capable of ethical cognition. To have the kind of rational wherewithal and orientation that is requisite for scientific cognition is already to be capable of ethical cognition. Ethics lies beyond the categories of the natural or the scientific only because it lies before those very categories. Ethics informs and makes possible the very category of the natural. Ethics informs and makes possible the very aspiration for a science of nature.

These points about the priority of ethics to science are not less important to scientists than they are underappreciated. They reflect not only the logic of our situation as scientists, but also the longer history of that kind of culture within which science has been a part. For, when wholly oral forms of culture began to succumb, roughly five millennia ago, to the burgeoning effects of agriculture - that is to say, when oral arts of memory were no longer equal to the task of ordering social life, because the human population had increased so much, and social roles within societies had become so very compounded, that unaided human minds could no longer track all that needed to be tracked - the peoples that were thus affected were forced by circumstances to make an ever more vaulting investment in reason. Mythologies had become inadequate as guides to social life and to human material survival and flourishing. First in the ethical sphere, and only later in the sphere of theoretical thinking, cultures oriented themselves ever more to reason, rather than the mnemonic arts. Peoples' invention and ever compounded use of technologies of writing, for rendering memory exosomatic, both reflected and fostered this change. So profound it was in the end that anthropologists discuss it as altering the very character of cognition itself. We may say without exaggeration that it helped create for the first time the literal qualities of mind without which the endeavour of science cannot even be conceived, let alone successfully practised. This shift of cultures touches heavily upon what we even mean by ethics. Yet it was at the same time necessary before people could even form or grasp the concept of a natural order, towards which to direct inquiry in a rational, literal-minded way.

In treating here of morality or ethics as original to this key cultural transformation, I shall insist on the following. Our heads, and their capacity to cognise, already qualify our situation ethically, quite before our hearts come into play. That is one key concomitant of my claim that only societies that form in relation to ethics a vaulting investment in reason produce science in the first place. Ironically, present-day scientists often insist on quite an opposite view of ethics to my own. Typically they share with analytic or empiricist philosophers the determination to trace downwards, in order to discover the spring for a certain action of ours, to dispositions in us that are either innate or that we were socially conditioned to acquire. On their view what is ethical about our experience enters our situation from the bottom up, as either innate or socially inculcated desires or passions. I say that this view radically undersells our own individual, let alone our collective, intelligence.

Contrary to the bottom-up conception, people act on values, not desires. There is in fact far more significance for ethics in what enters our situation from the top down,

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This paper has been peer reviewed

because of our rational wherewithal, and our culturally heightened concern for coherence or harmonious order, than in what enters our situation from the bottom up, as either innate or socially inculcated desires. The springs for people's actions, in our kind of society at least, are to be discerned not by analysis so much as by synthesis. Even terribly stupid persons among us are (when you think about it) hugely impressive in the extent to which they gather themselves together, create order in a way of being, and seek not solely to fulfil their desires but rather also, beforehand, to harmonise and thereby rationally adjust them. And by doing so they act on values, not desires.

Yet there is a take on ethics, popular in the present day both amongst scientists and among analytic philosophers, according to which what animates us about what we call right versus wrong or good versus bad and makes us regard ethics as real are the pulls on our heart-strings, rather than our higher acts of comprehension. It is far more telling however to emphasise our higher acts of comprehension, and to put our heads very much before our hearts as determining the form of ethics. That is the way to understand ethics as not so much separate from science as orthogonal to it. That is the way to see that despite their orthogonality the two cannot come apart. And that alone is how to understand ethics as in fact objective in the demands that it makes on us and in the way that it thus informs our situation.

It is important that I illustrate and defend my top-down, reason-based view of ethics and I do this next. I then extend this discussion by engaging the issue of global warming. I show in connection with that issue why it is as possible to be objectively mistaken in one's values as it is to be objectively mistaken concerning what facts there are.

Objectivity in morality

A familiar facet of morality is the difference between wants and needs. Needs are morally justificatory in a way that wants are not. A need for something implies a *prima facie* moral claim over it in a way that the mere wanting of it does not. If you need something then it follows that you ought to have it, but if you merely want something then nothing follows from this about whether you ought to have it or not. Let us examine how this difference arises.

First I shall illustrate the difference. Consider the case of a person, Fred say, a denizen of a large and relatively anonymous university hall of residence, who is on the brink of becoming an alcoholic. If Fred continues to drink heavily then he will shortly become alcoholic, but with a little self control Fred can still rescue his situation. Let us suppose that, right now, even though he's just woken up for the day, Fred, sitting all alone in his room over there in his residence hall, wants a drink. We don't need to exercise much imagination to see that although Fred wants a drink, he doesn't need one; in fact, Fred needs *not* to have one.

Evidently what makes a *want* objective are underlying actual elements of the situation, but what makes a *need* objective is the form of a larger, encompassing, ideal. Fred's want for a drink arises just when Fred becomes exercised by the desire for a drink. The want for *this* drink of, say, more or less pure whisky, which Fred has just taken up in his

hand - a luke-warm, greasy-surfaced apparition quivering and blinking hopefully at Fred from out of the bottom of an unwashed institutional coffee cup, into which Fred had somehow managed, hours before, late into the drunkenness of the previous night, to slosh it - the want for *this* drink of whisky arises when Fred forms the belief that, yes, he could drink this, and at the same time becomes exercised by the desire to do just this. You can look, in other words, just to part of Fred's make-up, just to certain beliefs and desires that he actually has, and discover there the entire ground for the want. That is, the reason why the want is an objective feature of Fred's situation just concerns certain actual, underlying elements of that situation.

Now Fred's *need* (which is *not* to have a drink) is, by contrast, different. The actual need here relates to the form of an *ideal* way of being for Fred to have. The actual need relates to what may be non-actual, for it may be that Fred never himself gets it together to actualise the way of being which would be ideal. Of course if the way of being that is in question here is an ideal one for Fred, it has somehow to incorporate some actual elements of Fred's make-up. Supposing that Fred has not yet sunk far into alcoholism, it will not be hard to discover suitable such actual elements in Fred. He will still have many actual desires other than for drink - actual desires, moreover, the conditions necessary for his satisfying which in fact involve his avoiding alcoholism. The ideal against which to measure Fred's real *needs* in his present situation may embrace many such actual desires of Fred's. Still, the ideal in question, since it is a better gathering together of Fred than he himself has managed for himself, certainly reshapes the package of desires that are Fred's. And it does so not with a view only to the *inner* coherence of these desires, but also to Fred's coherence with the larger social arena surrounding him, itself suitably idealised. There are only practical limits to how far the consideration of larger and larger wholes should be taken.

Notice that we learn from such considerations what the *value* of Fred's filthy institutional coffee cup full of whisky is. Is the whisky *to drink*? Is the good of it to be got out of Fred's drinking it? Or is it good only for throwing out? In order to answer such questions of value, one needs to look to the larger situation. Value is holistic. But this resembles science, where questions concerning the concepts themselves that are best employed to comprehend a subject matter can invite into play very holistic considerations indeed. And just as it is an objective question what concepts are best employed to comprehend a subject matter in science, it is an objective question what is or is not of value for Fred, or for anyone.

The ethics of greenhouse gas emissions

In Fred's case we could see as telling the characteristics of a situation perhaps larger than that of which Fred could himself form a consciousness. A still more telling example concerns a case where the larger situation is quite evidently very large indeed, perhaps so large that no-one has yet formed a well-considered consciousness of it. Let us ask ourselves: are the earth's so-called 'fossil resources', such as petroleum, to burn? An alternative conception is that

petroleum is to help lock up carbon atoms, and keep them out of the atmosphere (and coal and natural gas likewise). The latter view of 'fossil resources' is as it happens a *strict* alternative to the former, since when we burn petroleum, or coal, or natural gas, the carbon atoms that were previously locked up underground inevitably then become part of the atmosphere, as CO₂.

It is a new thought, that petroleum (for example) is to lock up carbon atoms and keep them out of the atmosphere. We have not long been exercised by it. And in the many decades before this thought arrived to worry us, our society structured itself ever more thoroughly around the assumption that petroleum is to burn. Consequently, the reasons which by now exist for thinking that petroleum is to burn, are extraordinarily thoroughgoing. A whole systematic way that people have of falling in with one another, getting on with their pursuits, advancing themselves and others towards goals, through and through depends on our taking it that petroleum is to burn. To entertain a different thought about the so-called 'fossil resources' such as petroleum would be difficult, because the ideal which would inform any different conception about them would need to be alienated from a very great proportion of the way that we work and hold ourselves together. This is why the new worries about petroleum are deeply unsettling and unpleasant. They are very great challenges to whether we really have it together at all.

The point is that, when we consider, as well as we might, a large enough, sufficiently encompassing whole, then, as it turns out, we are, to everyone's surprise and chagrin, pressed by weighty reasons to reconsider about petroleum, coal, and natural gas. Consider the people on low-lying islands in the Pacific. Surely the ideal way of being for us should not impede these people attaining their goals. But their goals are as nothing without the continued propagation of their culture. They need their enterprises to flourish indefinitely, otherwise the goals which define them are not fulfilled. And were the lands of these people swamped by a rising of the sea, then their culture would not be continued, and so their goals would not be fulfilled.

Yet it is, as we have begun to see, a significant fact about burning petroleum, that this activity is even now causing the sea levels to rise. So by widening the net of our considerations, we see a problem for the old ideal in light of which it seemed clear that petroleum is to burn. What a better ideal would be like, one which melds and systematises the interests of all people, all considered equally, all over the globe, future as well as present, is difficult to determine exactly, but there are powerful, disturbing indications that, in its light, petroleum would be not to burn, but rather would be to leave underground.

Ethical questions, such as the question what we should or should not be doing with petroleum, can be perfectly objective. Whether petroleum is to burn is a question that every last person can answer incorrectly. We could all think that petroleum is to burn and be wrong to think so. The problem for people could just be that they haven't put enough together, before answering for themselves what petroleum is for. But it is necessary that they have put something

together, that they have had recourse to an ideal, for them to have judged in the first place, falsely as it may be, that petroleum is to burn. So really the thought about the value of petroleum cannot exist without the putting together of an ideal, and the putting together of an ideal is always such that it might, for all we know, have failed to go far enough. So the very thought that petroleum is to burn is possible only in a way that involves an antecedent possibility that it is false. And this is so even if by happenstance - from lack of vision, let us say, of just from simple lack of knowledge - everyone *agrees* (falsely) that petroleum is to burn.

That petroleum is instead to leave underground, locking up carbon atoms and keeping them out of the atmosphere is not a scientific property of petroleum. It is not a property at all, in my view, but a moral significance which petroleum may or may not objectively have, dependently on the characteristics of an encompassing ideal. In considering where this significance comes from, it is especially important to remark how unity or coherence trumps givenness in the construction of ideals. The holism of value means that the values of things are not reducible to underlying characteristics of the world. The question what it would be to bring integrity to the whole is not less important than the question what given elements are to make up that whole. Thus neither values nor the ideals that inform them are in nature. Rather they impose quite from outside of nature on what may be said morally concerning it. Ethics is objective but no part of nature. Ethics refutes naturalism, or thus any conception that science has a monopoly on objectivity.

Issues for foresters

Recall my explanation for why ethics cannot be comprehended within the order of nature: in the order of cognition, ethics comes earlier than science. Before anyone could be worked upon by the ideal of scientific objectivity, they would already be subject to the ideal of objectivity in ethics.

In practice scientists can find rather entangled with one another their ways of being subject to these two distinct ideals. Scientific considerations that demand aspiring for objectivity can themselves partly inform ethical considerations that also demand aspiring for objectivity.

For example, a forester might consider scientifically the quantity of carbon sequestered in a forest. But this scientific consideration is entangled with the wider and partly ethical question what value the forest has. Do commercial forms of consideration appropriately identify the forest's value? Probably not. Thus, commercially, the value of protecting plantation forests against devastating accidental or natural conflagration would concern the merely commercial losses to investors in the forest. Yet the plantation forest's true or objective value may concern as well its significant sequestering of carbon, a sequestering that will continue for the planet only if certain intended down-stream uses of the wood are achieved. A forest fire would nullify not only the commercial value of the forest but also the further value of the forest in carbon sequestration. This may imply a need to internalise to the commercial considerations various aspects of the value of the forest currently external to those commercial considerations. Or it may imply a reason

why states or even international agencies should actively protect forests from accidental destruction by fire, rather than leaving such protection a responsibility merely of the commercial sector.

If these considerations are, as I claim, significantly ethical, it is also apparently the case that New Zealand authorities are presently muddled concerning them.² That New Zealand's net area of plantation forest actually declined during the year ended March 2006, and has almost certainly declined again this year, certainly raises some serious concerns. This decline is ironic considering that, when calculating New Zealand's Kyoto credits and liabilities, the Government predicted 30,000 hectares per annum growth in forest plantations in New Zealand during the coming years. Of course the actual deforestation that has occurred represents its own injection of carbon into the atmosphere, and also raises the level of production of methane (a greenhouse gas 23 times more efficacious gram for gram than carbon dioxide) due to the resulting agricultural uses of the land. If potential investors in plantation forestry have partly responded to short-term market signals, currently affected by New Zealand's high dollar and the present high transport costs for wood exports, they have also responded to rumours that Government might tax those who make the decision not to replant after harvest. For, far from protecting forests, the rumoured threat of such taxation has produced a counterproductive effect, inasmuch as land owners who value their freedom to change land use in the future are given a reason by it not to convert their land to forests. Some land owners say they have accelerated their deforestation so as to avoid penalties that may be imposed for such actions during the first Kyoto commitment period. The whole further issue that carbon credits need to be adequately shared with the forest industry, thereby internalising to commercial imperatives the value, currently external to those imperatives, of carbon sequestration, is also apparently being poorly handled in New Zealand. No doubt fingers can be pointed in various directions concerning both the tax rumours and the perception that the policies currently under development do not adequately share carbon credits with the forest industry. Looking at the current figures on deforestation it seems undeniable however that wrong things are happening. In reflecting on this there is every reason why our disappointment in the situation should be partly ethical: it seems that our leaders, on one or other side of the House, are hindering us from getting things right. An alternative conception in which there also may be some truth is that the effort to internalise to merely commercial imperatives the environmental imperatives currently external to them is extremely tricky and perhaps impossible. New Zealand may have lost its way partly because of its privatisation of the forest industry, and the way that single-bottom-line reasoning in industry works. The ethos of the single, dollars-bottom-line within which government authorities are attempting to craft the optimal

² My thinking in the present paragraph was assisted by Euan Mason who brought to my attention the facts asserted here in his capacity as editor of this journal. The opinions expressed are nonetheless to be taken as entirely my own.

dollar signals perhaps itself foils efforts to achieve optimal environmental policy. If so, one hopes that ideas such as that of triple bottom lines (profit + social responsibility + environmental responsibility) can become efficacious in industry, or that society can otherwise successfully amend how industry works.

Returning to forest fires, let us consider a ballpark estimate of carbon losses from the roughly 400 ha of plantation forests that annually burn in New Zealand. Let us for discussion's sake set this at 20,000 tonnes.³ This figure converts to nearly 73,000 tonnes of carbon dioxide. Now, from the NIWA web-pages (in particular, <http://www.niwasience.co.nz/ncc/clivar/gases>) one can learn that New Zealanders' 'ordinary' uses of carbon (largely through processes of combustion) contributed 32,430,000 tonnes of carbon dioxide to the atmosphere in 2001. We can learn several things from this comparison.⁴ If New Zealanders aim to reduce carbon dioxide emissions, the prevention of fire in the plantation forests can make a small contribution, as it represents roughly 0.2 % of the total problem. At the same time however, the imperative for Government policies to encourage augmentation rather than decline of plantation forestry is still more significant. Furthermore, these quantitative considerations also make clear that we have a very much larger problem to deal with, concerning our addiction to fossil fuels. For the relatively vast conflagration of plantation forests by fires which is to be much regretted, nonetheless pales by comparison with the conflagration of fossil fuels in New Zealand. The burning of fossil fuels may largely be hidden from sight and mind, but nonetheless inexorably alters the atmosphere of our globe.

As science brings into clearer form its understanding of what in fact will ensue as humans alter greenhouse gas concentrations in the atmosphere of this planet, we learn that truly catastrophic change is threatened. Temperature changes high enough to destabilise whole ecosystems that might otherwise have remained quasi-stable for millions or even tens or hundreds of millions of years, to undermine food production very seriously, and to cause sea-level increases that would displace hundreds of millions of human beings, can be expected to follow from our present forms of life. The issue whether this is acceptable is ethical. This paper has argued that the problem thus raised for New Zealanders is not a matter of subjective personal opinion, though there will be subjective personal opinions expressed concerning it. The problem that is raised is, though ethical, in its exact characteristics perfectly objective. We would be in denial concerning what makes science itself possible, to argue otherwise.

³ Stuart Anderson guided me to this ballpark figure in private discussion. It is based on rough estimates of carbon sequestration by plantation forests, and on a rough estimate that fires would release half of this carbon.

⁴ My environmental sociologist father, William R. Catton, Jr., the author of *Overshoot: The Ecological Basis of Revolutionary Change*, Urbana: University of Illinois Press, 1980, has in various writings examined this kind of comparison.