A Christian Evaluation of Scientific Attitudes in Ethics and Economics

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In the Second Vatican Council document *Gaudium et Spes*, we find an important chapter entirely about economic and social issues. Reading through this chapter, we feel considerable courage and optimism. There is no fear of the world here, nothing of the *fuga mundi* mentality here, nothing of what we unfortunately find sometimes in some present-day theological tendencies. What we find in *Gaudium et Spes* are bold statements like the following: ‘Christians who take an active part in present-day socio-economic development and fight for justice and charity should be convinced that they can make a great contribution to the posterity of humankind and to the peace of the world’ (GS §72). Notice the strong expression ‘fight for justice and charity’ in the original official Latin ‘*iustitia caritatemque propugnant*’. This was written in 1965. Ten years later, in 1975, the Society of Jesus came up with the much discussed Decree Four of GC32, which included a definite identification of the promotion of justice as an integral part of the Jesuit’s mission. As some of us will certainly remember, many an eyebrow was raised, all over the world, regarding the apparently new direction the Jesuits were taking. The major worry was that the Society seemed to be abandoning its venerable intellectual tradition for a hippie kind of lifestyle. In 1976, Fr. General Pedro Arrupe wrote a letter to the whole Society to address this issue, entitled ‘The Intellectual Apostolate in the Society’s Mission’. Quoting directly from GC34 Decree 4, he asks: ‘what connection has the intellectual apostolate with the mission of the Society today? ... [The promotion of justice] implies that “we are prepared to undertake the difficult and demanding labour of study” required for understanding and solving contemporary problems (D4.n.35; c.f. n.44). At the same time, the General Congregation lays stress on the unjust structures of society (D4. nn.31, 40). But how can we understand these structures and discover ways to modify them, without serious study?’\(^1\)

What I propose in this public talk is to engage precisely in an example of what such serious study might mean. I invite you to enter with me into the very engine room of economics. So let us bypass the glittering front-rooms of politics; let us go beyond the hubbub of the business area; let us side-step the complex corridors of finance, and go down to the underground area: the engine-room. What do we find? Global economics is inspired by the theory of ethics that has come to be considered a direct application of scientific methods to the realm of ethics. The idea here is that we get to know what we should do, we discover our obligations, just as we discover how planets move across the heavens, or how objects fall towards the earth. This kind of ethics is utilitarianism. I will explore with you what can be learnt from a comparison

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between the methods of science and utilitarianism.

The classic origins of utilitarianism are found in the works of Jeremy Bentham, especially his *Introduction to the Principles of Morals and Legislation*, first published 1789; and in the works of John Stuart Mill, especially in his *Utilitarianism*, first published 1861. The very first sentence of Mill’s book is the following:

> The creed which accepts as the foundation of morals, Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain; by unhappiness, pain and the privation of pleasure.

The basic idea behind this project is that evaluating action by referring to Divine Law, or to social convention seemed to Mill lacking in objectivity. It needed to give way to a rigorous consideration of human well-being or happiness as the touchstone for moral evaluation. It’s not primarily because ethics prior to Mill was not up to the tasks society was facing. Rather, it was because Mill wanted to employ the inductive methods, the measurement and calculations characteristic of natural science.

In fact, utilitarianism is practically an extension of science into the ethical domain. How so, one may ask? Three reasons: first of all, there is the fact that utilitarianism promises a unified system of moral thought based on the analytical approach that has proved so effective in the natural sciences. In attempting to resolve all moral issues by relying on one uniform ultimate criterion, utilitarianism has appeared to be the ‘rational’ moral theory *par excellence*, on a par with scientific explanation. It allows a formal, neat mode of maximising one homogenous magnitude. It thus offers a standard of consistency and completeness that might seem unachievable otherwise.

Secondly, both utilitarianism and science seek to provide liberation from the constraints of arbitrary systems of thought. It protects against systems of thought that can be manipulated by political demagogues to their own personal advantage. John Paul II, in his encyclical on moral theology *Veritatis Splendor* makes precisely this point. In §76, we find that

> [All forms of utilitarianism] can gain a certain persuasive force from their affinity to the scientific mentality, which is rightly concerned with ordering technical and economic activities on the basis of a calculation of resources and profits, procedures and their effects. They seek to provide liberation from the constraints of a voluntaristic and arbitrary morality of obligation which would ultimately be dehumanising.

This is all well and good. The encyclical continues however with a negative point:

> These theories however are not faithful to the Church’s teaching, when they believe they can justify, as morally good, deliberate choices of kinds of behaviour contrary to the commandments of the divine and natural law.

We will have to revisit this point. For the moment, let me continue by highlighting another aspect that shows how utilitarianism is essentially scientific.

This third reason has to do with method. Both scientific research and utilitarianism hope to arrive at objective claims. They both aspire to claims that will be endorsed by the independent findings of other people. Both disciplines consider themselves engaged in the task of mapping the real order rather than arbitrarily creating it. Science discovers the real contours of the material world. Utilitarianism determines the correct course of action for each possible action-situation. Both disciplines accomplish this task in two steps. First they choose some parameters of the objective real world they deal with, then they manipulate these parameters within a ‘calculus’
so as to produce an objective picture that is allegedly beyond any particular viewpoint.

I hope these three points of similarity between science and utilitarianism are enough to convince you that if we want to look for scientific attitudes in ethics and economics, a good place to start is certainly here. The crucial issue that deserves considerable attention is the last point I mentioned concerning the ‘calculus’ at work in both disciplines. There is crucial step whereby both scientists and utilitarian moral philosophers choose the parameters they take to be relevant. How do they do this?

1. The calculus in Science

Let us first consider the calculus in science. The classical, technical term associated with this point is abstraction. Having ideas and organising them into theories starts here. Abstraction refers to the mental process by which a person recognises individuals and organises them into groups by identifying unifying features. This is done by accepting some facets of a thing or situation, while other facets are discarded. For example, Aristotle was convinced that an object has not only sensible aspects, that determine how it is perceived, but also intelligible aspects that determine how it is understood. Abstraction is better understood in terms of mathematics. It can be seen as the process by which the inquirer identifies the essential geometric and mathematical features of the object or phenomenon under investigation. This is done so as to predict changes in some of the variables involved. For example, a falling stone is seen as a point-mass, a gas as random motion of point-masses, a plant as a self-regulating system needing minerals and light.

Although fundamental, abstraction seems to involve a problem. It is essentially a mental operation that always leaves something out. It neglects those aspects that make the individual unique. To understand a thing or situation, the inquirer must discard the individuality or uniqueness of that thing or situation. Only if one goes beyond, and effectively leaves out, the individual horse, can one grasp the idea of horse as a universal. For natural science, the same thing happens. The shape of the falling stone is neglected when it is considered a point-mass. Broadly speaking, the aim of science is very often to arrive at the equation that represents many individual things or events. The equation necessarily goes beyond the individuality of each situation described.

For most areas in science, this neglect has no serious consequences. Some systems are so free of complications that we easily forget that abstraction is leaving something behind. For example, explaining the movement of the planets in the Newtonian way, namely in terms of mutual attraction and resulting motion of points in space, leaves practically nothing unexplained. Other systems, however, are notoriously difficult. The situation becomes chronic when the method of the natural sciences is applied without qualification to the human sciences. These human sciences try to explain areas directly influenced by human decisions. In such cases, the inevitable neglect of the individual due to abstraction can give rise to gross deformities and
even injustice.

It is clear, therefore, that for complex issues abstraction may not always offer the same results. Knowledge is often needed for a particular purpose, and this purpose determines the way we abstract. It determines the aspects we retain as relevant and the others we discard as irrelevant. At the start of the scientific revolution, historians identify an interesting shift in attitude. From a vague desire to acquire knowledge for its own sake, Francis Bacon shifts to a desire for a kind of knowledge that guarantees a domination of nature so as to ameliorate the condition of humans. The borderline between relevant and irrelevant changes. The result is that a new map of the given is inaugurated, and it is still with us today. This map is drawn according to the presupposition that nature is something of a menace to be conquered, tamed and exploited for the benefit of humans. When two different versions, or maps, are available for the same reality, the natural question to ask is: which is the correct one? Both maps include some aspects and neglect others. Is therefore the very map-making process a falsifying one since it cannot include all the aspects together?

The problem runs deep. We accept that the real is made up of singulars. We accept that the act of understanding involves leaving out the individuality aspect to arrive at the intelligible universal. It seems necessary to conclude that abstraction is inherently fallacious. It seems to be a process that forbids the knowledge of things as they really are. The Scholastics (the ‘real’ Scholastics, not these Jesuit ones of today...) had debated this point and arrived at the thesis: *abstrahentium non est mandacium*. Through abstraction, our possession of the thing is certainly not complete. We do not have the entire thing in our minds. This fact, however, does not mean that abstraction supplies us with false knowledge. It simply means that full possession of the thing is not possible via the act of understanding.

This reply merits further investigation. As in most other cases, the Medieval Philosophers offer us precious insights as regards simple, everyday cases. They leave us however, rather unprepared when it comes to more complex cases. Does smoking cause lung cancer? This is a pressing question involving very complex issues. What are we to do when faced with such questions? The realities involved here, namely smoking and lung cancer, are perplexing. How can we define smoking? The very description of these realities defies consensus. There is a multitude of variables to choose from. It is not difficult to see how various lines of inquiry open up, even when considering the very same question. Moreover, there is the possibility of distortion of reality or outright mistake. This arises when, in the act of abstraction, the neglected

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2 This point is discussed in various philosophical schools. In the tradition directly concerned with interpretation, hermeneutics, it is often discussed in terms of hermeneutical prejudice, which can be positive or negative. For instance, Hans-Georg Gadamer writes: “‘Vorurteil’ heißt also durchaus nicht: falsches Urteil, sondern in seinem Begriff liegt, daß es positiv und negativ gewerter werden kann. Offenbar ist die Anlehnung an das lateinishe praejudicium darin wirksam, daß neben dem negativen auch ein positiver Akzent auf dem Worte liegen kann. Es gibt préjugés légitimes.” *Wahrheit und Methode*, J.C.B. Mohr (Paul Siebeck), Tübingen, 1975, Teil II, Kap. II, §1a, p. 255.

3 Bacon writes: ‘Knowledge and human power come to the same thing’, and ‘nature cannot be conquered except by obeying her’ (*Instauratio Magna*, 1,3). For him, the purpose of science is the extension of the dominion of the human race over nature.

4 Neglecting some characteristics of a thing in order to explore one aspect more fully does not involve deception, provided that the fact of neglecting these characteristics is not denied. Aristotle was aware of this point, at least as regards mathematics: ‘That is why he [the mathematician] separates them; for in thought they are separable from motion, and it makes no difference, nor does any falsity result, if they are separated. The holders of the theory of Forms do the same, though they are not aware of it.’ (*Physics*, 193b34).
aspects turn out to be the important ones and the retained ones the trivial ones.

This line of reasoning finds an exact parallel in ethics in its utilitarian form, because many utilitarians have been tantalised by the prospect of a calculus of utility as a method of reducing moral decisions to mathematical calculation.

2. The calculus in Ethics

Just like scientists, defenders of utilitarianism engage in the organisation of ideas to form a theory, and then use this theory to draw conclusions about future cases. The various sciences have varying degrees of possible deformation, depending on their object of study. In the mathematical hard sciences the possible deformation is often a minimum. This is so because the object of study is usually an ideal case with no interfering causes. One may conceive of a list of disciplines with gradual increase of possible deformity depending on the object of study: a kind of ladder with the more precise at one end and the most imprecise at the other. The mathematical sciences are situated at one end of this gradient, at the point of lowest deformation. The human sciences are situated at the opposite end of the spectrum. The possible deformation here is considerable. The most glaring example is probably the one involving ecology and economics. When we abstract with the attitude of dominating Nature, of considering it a menace to be conquered, tamed and taken advantage of for the benefit of humans, we are essentially retaining some aspects that are in line with one particular project, and neglecting other aspects that are not in line. This kind of abstraction can be devastating. In the words of Michael Northcott in his 1996 study called The Environment and Christian Ethics,

...the modern money economy operates regardless of natural ecological constraints because its measures of wealth and of exchange relations are abstracted from natural ecological systems. The spatial abstraction of modern economics is so extreme that even were all the rainforests to disappear and sea levels to rise two feet, and the climate warms by 4 degrees and large parts of the world become uninhabitable, individuals and companies who had burnt the energy or consumed the forests in industrial production would still be reckoned wealthy in economic parlance.5

When, in economics, abstraction is not handled with care, money is considered the only measure of progress. Wealth in terms of money can obviously be maximised by the destruction of some people’s cultures, and even livelihoods. Sad to say, this is the mentality that is becoming global as it dominates both the developed and developing countries world-wide.

My claim is that utilitarianism inevitably sits together with economics at this end of the spectrum, namely the end of high possible deformity in understanding. I’m claiming this because abstraction in utilitarianism, in the sense I’m using it in this paper, can result in three serious deformations.

Deformation number one: this concerns the omission of persons. Utilitarianism is blind to certain fundamental aspects of the people involved in the situation it is meant to account for. The philosopher Bernard Williams has left us a famous critique highlighting precisely this weakness. In one typical argument, he imagined a man, Jim, who finds himself in the square of a small South American town, confronted by twenty captured Indians.6 The captain who has quashed their rebellion declares that if

Jim kills one of them, the others will be allowed to go free; if he does not, they will all die. According to utilitarianism, which considers the goodness of an action to reside in how much it increases the overall sum of happiness, there is no problem for Jim: he should kill one of them. There is, however, a problem. The distinction between my killing someone, and its coming about because of what I do that someone else kills them is crucial. For utilitarians, however, such a distinction is completely invisible. Utilitarianism strips human life of all that makes it worthwhile, failing to take account of each person’s integrity, of the projects central to their lives, of the obligations and loyalty owed to family and friends. Recall what we find in Mark’s Gospel 8:36 ‘What gain, then, is it for anyone to win the whole world and forfeit his own life?’ The abstraction involved in utilitarianism makes an agent a mere source of effects in the world. Essentially, utilitarianism sees persons as locations of their respective utilities. In the utilitarian calculus, ‘persons do not count as individuals any more than individual petrol tanks do in the analysis of the national consumption of petroleum.’

Deformation number two: this second problem results from the fact that utilitarianism abstracts selectively as regards what constitutes genuine human flourishing. The simplest version of utilitarianism can be seen as a form of hedonism: pleasure and pain are the only indications that are relevant for the evaluation of human living. More recent versions of utilitarianism broaden the idea of pleasure-seeking to include also the seeking of satisfaction or the seeking of happiness. In the version known as direct consequentialism, only the consequences of a singular act are relevant in deciding whether it is good or not. Hence, an act is morally obligatory if and only if it produces a greater balance of pleasure over pain, or of desire-satisfaction, than any alternative action available to the agent. The moral realm is simplified so as to be amenable to calculation. In fact, direct utilitarianism is essentially a moral theory ‘for the ideal case’ just as most equations in physics. For instance, the simple equation \( s = \frac{1}{2}gt^2 \), describing the relationship between distance covered during a free fall of duration \( t \), is intended only as applicable to the ideal case that involves no air friction, no angular momentum, and none of the many other factors that make up real-life situations.

The same thing happens for utilitarianism. Abstracting from the various elements that make up well-being, utilitarianism picks only those factors that allow easy calculation. It often assumes that only pleasure and pain count. Even if further refinement is added, it is usually done in terms of a kind of ideal observer who has information that transcends the actual social situation. For instance, the ‘true’ preferences of citizens are often stipulated independently of any expressed preferences by those citizens themselves. The ideal observer is assumed more knowledgeable than the citizens. The fiction of the ideal observer is made even worse by assuming that utilitarianism furnishes us with a complete theory, in the sense that it offers a way of arriving at the correct ranking of values or priorities in any kind of conflictual situation. The gross artificiality of this idea is evident when, for instance, a cost-benefit analysis is applied to such subjects as the ‘valuation of life’ in debates concerning euthanasia. The upshot is that utilitarianism, at least in its direct consequentialist form, abstracts selectively from the complex reality constituting human well-being.

Deformation number three: this third problem I would like to highlight concerns another kind of abstraction. This time, our focus will not be on the persons involved, as in deformation one, nor on the nature of well-being, as in deformation two,

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but on the very morality of the act under consideration. As has already been mentioned, utilitarianism limits itself to the idea that the morality of the act lies in the evaluation of the amount of desire-satisfaction that it produces. Since this version had to face serious problems, some philosophers tried to avoid direct consequentialism by adopting another kind of consequentialism, often called rule consequentialism. According to this rule consequentialism, the rightness of an action depends not on the consequences of the action itself. It depends rather on the consequences of various sets of rules. Direct consequentialism evaluates actions in terms of their own consequences, while rule consequentialism evaluates them in terms of the consequences of holding on to the particular set of rules they represent. For instance, according to rule consequentialism, it is wrong for Jim, the man in the South American town, to kill an innocent person so as to quell a riot that would lead to the killing of many. It is wrong because it would be creating a rule that is harmful for society in the long run.

In spite of this move from utilitarianism to rule consequentialism, the fundamental character of utilitarianism remains, namely its linking the morality of an act exclusively to consequences. Out of the complexity of the morality of an act, only this factor is singled out. Abstraction is again at work, and, this time, what is left out is important. It is certainly not difficult to see how the morality of an act is much broader than consequences only. There are good reasons to hold that what determines the morality of an act includes the object, its end, and its circumstances. I understand the object of the act here as that which is actually done or projected as a possible human accomplishment, as in the case of the object of murder being the killing of an innocent person. In brief, the object of my act is the answer to the question: what am I doing? The end of the act is the purpose or motive for which the agent acts. The question here is: why am I doing it? The circumstances of the act are individuating conditions that, although in themselves not part of the nature of the action, nevertheless modify in some real way its moral quality. For instance when, where, and how I do something may affect whether what I did was right or wrong. Of these various factors, utilitarianism abstracts only the consequences of an action. Apart from the distortion that results from neglecting the other factors, the utilitarian attitude bypasses the important point that the consequences of an action affect its morality only insofar as they are known and willed. If the consequences are known and willed, then they become part of the object or the nature of the act itself. For instance, when the insecticide DDT was commercialised for the first time, the devastating ecological consequences were not known, and certainly not willed. These consequences were only discovered later. It would be absurd to call the initial commercialising of DDT an action that was morally wrong, when no one knew of its consequences.8

In spite of the foregoing criticism, however, I do not want to claim that utilitarianism is to be damned outright. It remains a useful theory in morality on condition that its abstractive nature is understood and taken into consideration. In other words, it can be a useful tool on condition that it doesn’t consider itself a complete theory. In science, more and more variables may be introduced to arrive at closer and closer approximations. For instance the equation of free fall mentioned above may be augmented so as to include the effects of air resistance, angular momentum, and so forth.

8 DDT (the chemical dichlorodiphenyltrichloroethane) was used effectively in World War II to eradicate the mosquitoes that caused malaria. There was hope that it would be the miracle chemical that would rid the world of harmful insects. Rachel Carson blew the whistle in her *Silent Spring*, London: 1963, where she offers convincing proof that the use of such pesticides on one species affects other species, even those living very far away. She insisted that ‘in nature nothing exists alone’.
In a similar way, utilitarianism may be augmented with the addition of other variables so as to include, in some way, the crucial aspects related to persons, to the nature of the act, and to circumstances.  

3. Summing up

My original idea was to enter into the engine room of economics so as to evaluate in a Christian way some scientific attitudes in ethics and economics. What we have explored was the way both scientists and utilitarian moral philosophers choose the relevant parameters for their understanding. I hope the main result of this evaluation is now clear. Deformation results if the choice of parameters is not correct. My basic argument was that utilitarianism, like economics in general, unfortunately tends to sell itself as an exact science. People often forget that it deals with ideal cases, where the factors left out of consideration are considered negligible. When these neglected factors are not negligible, which is often the case in these disciplines, utilitarian analysis becomes deeply problematic.

I will now conclude with two short reflections. The first one deals with the claim to completeness in our understanding. This claim, as we saw, can be the source of error. How can we guard ourselves from such error? I hope my talk has shown, at least, how the complexity of reality obliges us to be always aware of the limitations of our methods. In general, we can ask: What should we do to gain a clearer and richer view of how things are? What should we do to gain a clearer and richer view of what happiness is? The answer is clear: we should see to it that the good ‘informants’ we choose from our group be positioned differently. We should see to it that the specialists, the researchers, we choose from our group be positioned differently. Having different viewpoints is not just to be tolerated. It is to be encouraged.

My second and final reflection concerns the Christian element within my talk. At the beginning, I had invited you to enter with me the engine room of economics so as to evaluate in a Christian way. What is the specifically Christian element? I have highlighted the integrity of the person. I have highlighted genuine human flourishing, including its spiritual dimension, and not just the element of pleasure and pain. Defending these aspects is certainly in line with our Christian heritage. Engaging in a Christian evaluation may perhaps also encourage some of us to ask whether Jesus himself could be considered a utilitarian. Was Jesus a utilitarian? This question has resurfaced recently in works by some philosophers like Anthony Quinton (1973) and Geoffrey Scarre (1996). However, even as far back as 1861, we find J.S. Mill writing: ‘In the golden rule of Jesus of Nazareth, we read the complete spirit of the ethics of utility’ (Mill, Utilitarianism, p. 218). Those who want to argue that Jesus was indeed a utilitarian use the following kind of arguments. They say that the Old Testa-

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9 Amartya Sen has been working on a formal approach to the understanding of the different components that constitute happiness. He calls them independent vectors that allow a summation indicating the degree to which an individual has a good life. The basic idea here is that a full conception of happiness for an individual is not a single property but consists of various components, to each of which is assigned a weight. The situation becomes complex because we cannot assume that the different possible life courses for an individual are fully comparable or commensurable. This vector-view of the notion of utility is introduced in: A. Sen, ‘Plural Utility’, Proceedings of the Aristotelian Society, vol. 81 (1980), pp. 193-218. His related capabilities-approach is well presented in: A. Sen, ‘Capability and Well-Being’, in: The Quality of Life, edited by M. Nussbaum and A. Sen, Oxford: Clarendon Press, 1993, pp. 30-53.

ment mentality was one that favoured obedience of laws irrespective of the consequences. Jesus, on the contrary, invites his followers to engage actively in promotion of the neighbour’s welfare, helping him especially in time of trouble, such as when he gets beaten up on the way to Jericho. Jesus favours a certain pragmatic common sense. For him, following rules should serve some useful service. Conclusion: Mill was right. Jesus was a forerunner of utilitarianism. Is this convincing?

Not at all: such a line of argument is misleading. It does not reflect the core of all that Jesus does. It neglects the fact that Jesus centres all his doctrine, all his life, on the love of the Father. As regards rules, Jesus demands that they be interpreted in the light of higher principles. These higher principles, however, are not other laws, but the love of God and of neighbour. What lies at the centre of Jesus’ ethics is a deep personal relationship. It is not a calculation of desirable consequences.\footnote{Nor is it a search for personal excellence, as Aristotle suggests. This element of egoism in the Aristotelian view doesn’t square easily with the attitude of Jesus. The Aristotelian agent’s good behaviour is governed by his own urge to become better. The Christian’s good behaviour is governed by a personal relationship of genuine love. This relationship may even lead to the Christian’s accepting death so that others may have life.}

Calculation is fine as a tool. It is a great gift with which the Creator endowed us. But it is not the greatest gift. The greatest gift is what St. Paul calls agapé. Even if we’re in the rather dark, noisy engine room, let us not lose sight of the higher gifts.