

Werturteilsfreiheit ? Approach to the ethical ‘bounds’ of modern science

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Introduction

What can scientific knowledge mean for our moral life, especially if we focus our attention at the level of those value-judgments habitually bound to the results of the scientific quest? Is there any connection between the endlessness of the scientific questioning of the world and the infinity of those in front of whom we pose that question? These questions bring to mind an influential author of the 20th century: Emmanuel Levinas. His first main work is called *Totality and Infinity. An Essay on Exteriority*, and his whole point is to show that when meeting another human being, when really seeing his countenance, his face, a meaning is shown, that exceeds and surpasses every power of reason, every concept, every institution and every scientific result – in philosophical terms every “totality” –, because in the concrete face of the Other an Infinity is shown and calls us in the shape of a commandment. And the only genuine answer is the responsibility for his or her life. But how could we argue from this “radical experience” of the Other and forge a bridge towards the results – knowledge and technical power – of science?

The Danish Nobel Price winner, Karl Gjellerup wrote a novel called “The Pilgrim Kamanita”. Like every Westerner – and like every human being, actually – , he sees the otherness of the other culture with his own preconceptions. He tells the story of a kidnap in India, “the land where even the robber must philosophise” (Gjellerup 1912, 305). In the days of Buddha a man is kidnapped, and it is decided,

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that if no ransom is paid, the prisoner should be decapitated. A philosophical discussion begins between the prisoner and the chief of the band. The whole point of the prisoner is that this killing act would violate a binding ethical norm, so it ought to be forbidden. And the chief answers, that if you consider the whole reality in its most basic structure, human beings like the rest of reality are basically just a bundle of atoms. It means that the sword would only separate a particular and contingent – not necessary and barely transitory – atomic union. Like when you split an apple, there is no moral dilemma there. This example is, from a particular viewpoint, of course, a merely “scientific” analysis of a fact (the forceful separation of a head from the rest of the body), *but* – and I would like to emphasize this – *also* a metaphysical position.

Why have I mentioned this episode of the history of literature? Because when I read the Conference Prospectus, two considerations focused my attention. First of all the “spirit” of this meeting: the question on how within Jesuit Universities (and *any* University for that matter) can we establish a fruitful relationship between science, technology, ethics, religion and concrete situations like poverty, injustice, discrimination, etc. On the other hand there is a “classical” structure, which organizes the topics according to a division borrowed from the medieval doctrine of the convertibility of being with truth, goodness, and here also with beauty. But it is precisely this metaphysical view which is brought down from modernity onwards, with its division of *fact* and *value*, and accordingly with Max Weber’s postulation of the *freedom of value* and of *judgements of value* in science. It is well known that this division originated with David Hume’s prohibition of the logical unacceptable *metabasis eis allo genos*, the “jump” from “is” to “ought to be”, which was later called “naturalistic fallacy”. Within a framework of modern technoscience, ethical questions seem to belong elsewhere. It is no surprise that scientists have felt that ethical discussions are somehow limiting factors of the impulse of the scientific enterprise.

I would like to organize these reflections around three points. First of all, I will appeal to the mythical conception of the relationship between man, technology and knowledge. Then we will review the main characters of the modern enterprise of knowledge, its secularising force, its pretended independence and its implicit – acceptable and unacceptable – bounds. Finally we will postulate the question on infinity itself within a contemporary comprehension of the concept, its meaning for science, and its possibility as “bound” for modern techno-science.

1. The mythical curse of knowledge and the origins of the Prometheic man

In many mythical narrations we find the problem of knowledge in general, and of technical and moral knowledge in particular, bound to a *conflict with divinity*. If we read the book of Genesis, the first narration of the creation of men ends with a command “fill the earth and *subdue* it” (Gn 1,28). What can this subjugation mean? This question is especially troublesome if we consider that from this command springs a whole tradition of interpretation which has its reception in modernity with Francis Bacon’s interpretation of the saying “*scientia est potentia*”, science is power. Moreover, with the birth of capitalism within the industrial revolution, there was the idea, that not only was man the owner of nature, but also that he was the owner of the force of labour of his brother, that the stock of nature was endless, and that no human intervention on nature and on his brother would damage – even when mistaken – the one who operated on them. These ideas seem today unacceptable. But this whole relationship with knowledge is already complex from ancient days, since in Genesis the fruits of one of the trees of the garden, the tree of “knowledge of good and evil”, are forbidden as nourishment (Gn 2,17). Why? The answer of the snake is that the one who eats will have open eyes, and he will be like God. We all know how the story goes, but what is its meaning in what hermeneutics calls “*Wirkungsgeschichte*”, which means the “history of the effects” of a text. Before thinking philosophically about it, let us remember a second narration.

Already before its analysis within Greek philosophy, the relation between technology and knowledge was addressed by mythology. If we remember Prometheus' theft of fire, the whole problem of the relationship between "nature" and its limits appears as well as the problem of the "violation" of those limits through technical knowledge, and finally also the human emancipation from divinity (Galimberti 1999, 64). Man is enticed to find through his own means, through his reason, the way of survival, without begging and waiting from the gods the gift of fire. Besides this new autonomy, there is suddenly another conception of time. From these mythical origins time loses its circular character and begins to be seen as a development, as a growth of a power that later in the modern age will give birth to the idea of progress. Prometheus would be the forerunner of modern self-made man (Hinkelammert, 2005).

Is there any common element between the Greek narration of Prometheus and the biblical one of the eating of the fruit of the tree of knowledge of good and evil? The Greek word for this common element would be *hybris*, the arrogant going beyond law and limits which only produces blindness, *ate*. If we just attend the traditional version, the whole lesson would be to see again the limits and respect them. This project would only mean to abjure the founding myth of Modernity, the Prometheic man. And yet this interpretation is difficult to admit today, because where is the limit to be found? How can we draw a line that is accepted by all in a society composed of "moral strangers"? How can we share a common conception of the world, when such a conception supposes a shared metaphysical perspective that does not exist anymore?

It is interesting to see that a forerunner of the scientific worldview, which was born in the Enlightenment, and then slowly imposed itself on almost every aspect of life, already criticized the alleged "advance" of modernity. I refer to the *Discourse on the origins and fundamentals of inequality amongst men* of Rousseau (1995). I will not go into the contents and context of Rousseau's book, but I will just underscore one

idea: knowledge is seen as a kind of *possession* and property of course is a possession too, and therefore the whole institution of culture is a way of possessing which implies the dispossession of others. At the same time that man loses his or her original “innocence” subduing earth and men, he or she becomes dependent on that what is subdued. At the very beginning of modern optimism and faith on progress we find also a pessimistic thread, which appears now and again (perhaps its final shape is the discussion of the late 20th Century on *if* all the evil – being its epitome the Shoah – was actually rendered possible and caused *through* modern progress, *or* if this evil was only a going astray of the project of Modernity, which after all is to be taken up again).

**2. To value or not to value:
the world image of modern scientific knowledge**

Modernity – like Aristoteles’ *to on legetai pollakos* – means many different things. But we can abstract some main characters that have had an influential story in science and later in the consequences of science in the world image of those who came in – direct or indirect – contact with it. It includes diverse ways of establishing explanation processes of world phenomena, without having recourse either to metaphysics, or to God, or to teleology. This means that this concrete movement occurs within the bigger framework of secularization, which portends a way of granting *scientifically* meaning to the world image without (directly at least) taking into account the meanings inherited from religious traditions – and *ethically* supposing that the subject is autonomous origin of the law.

But Christianity is by no means a passive observer of this process. We may illustrate it briefly. When Heidegger analyses the modern scientific image of the world, he shows that modern science cannot be separated from technology. Techno-science means an anticipating process, which attempts to methodically investigate a particular sector of reality, procuring to render it objective and proficiently controlled.

Techno-science becomes a structure for summoning the world and transforming it in a stock which can be disposed of (*Gestell*). The consequence for science and Universities is that their ideal is not the wise man anymore, but the researcher. Universities become a research enterprise (Heidegger 2002, 64). According to Heidegger in Christianity is found the first condition of possibility for this development, because it has set the fundament and origin of reality in something not-conditioned, infinite and transcendent, leaving the world as mere image at the disposal of the thinking subject.¹ And with a sociological approach Niklas Luhmann considers too, that the process that ends in functionalistic modern societies, which can mediate communication through different procedures without needing of religion anymore, was also made possible by Christianity itself (Luhmann 2009). Moreover, from a historical perspective it is hard to think about the origins of the three *leitmotivs* of the French Revolution, freedom, equality, fraternity, without having recourse to a secularised version of Christianity. Secularism, therefore, is a main framework of modernity.²

Another element, besides the transformation of the world in a represented world-image and the framework of secularism, is the legitimacy of *curiosity*. In opposition to the Augustinian opinion that every search for knowledge had to be evaluated with the question if such a quest would lead to salvation (or not), modern science legitimizes free *curiositas* (Marquard 1993, Blumentberg 1985, 377). If the main position of medieval Christianity meant that knowledge was only admissible not by itself but if it helped redemption, modernity affirms that no soteriological criterion can subdue knowledge. Therefore mistakes are not to be considered heresies but part of the

1 We should recall here the eco-theological discussion on if the book of Genesis really causes the ecological crisis through its idea of absolute domination of earth, or if on the other hand this particular version is just a deviation of the original meaning (White 1970, Degenhardt 1979, Drewermann 1992, Moltmann 1992)

2 Of course that this framework must be thought again considering the appearance of new “religions” (which, by the way, deny precisely some points in which “old” religions may come to terms with modern science).

normal development of knowledge. No external bounds are set for research, no higher entity is to unite or guide their results, no end can limit or impel a particular investigation. And therefore no failure is to be condemned and no position is to be judged as heresy. But the price of this freedom is an “existential sensation deficit” (Marquard 1993, 236). According to Marquard this deficit originates the current attempts of limiting science and knowledge not by means of more knowledge but by means of an ethics of science, which takes the old role of heresy controllers (Marquard 1993, 237). According to this position only freedom and research and research freedom can grant a better knowledge.

Nevertheless the development of this necessary and undeniable freedom has meant both in the level of research and also in the level of daily application a rift of our abilities of use from our scientific knowledge. We may be proficient in the use of things whose structure and processes we do not understand, we may possess such things, but at the same time our dependence increases exponentially. We are possessed by the technology we possess.

This dependence becomes clear when we see the very structure of research programs. First of all, there is a criterion of *relevance* that must be attested (Lübbe 1986, 22). There is also an undeniable need for interdisciplinary effort due to the very fragmentation of knowledge. And there is – of course – the financing element and its request for economically viable results. This all means that there are interests at stake in every research enterprise. For example, according to Habermas (1991, 156) different branches of sciences have different kinds of interests (descriptive interest in empiric-analytical sciences, interest for broadening the comprehension and communication capacities in historical-hermeneutical sciences, and finally and as goal there is the emancipation interest in social critical sciences) and the notion of interest serves as bond between theory and praxis. But is there any other source of interest? Are interests the last ground of discussion? Is there a way of showing that interests actually depend

on an *ethos*, which for instance, supposes the recognition of the other as other? Before attempting to address these questions, at least it seems possible to argue that the modern and already old separation of *description* of phenomena and *evaluation* are not two separated activities, but interwoven and mutually dependent (Putnam 2002). What can this all mean for the main question of our meeting?

3. Infinity as commandment and the task of the University

We live in an indigent age. It seems impossible (and unacceptable!) to go back to a fixist metaphysics, which would permit plenty of answers full of certainty by deriving without detours ethical judgements from nature's descriptions. But such a position is of course impossible to admit for most of our contemporaries. Moreover, the very meaning of nature is disputable. We dwell a time of disenchantment, not only in Weber's sense that the world was emptied from its gods and from its teleology and meaning. It is also emptied from the thrust of *desire*, that in spite of the "silence of the stars" – *de-siderare* – and of the gods that spoke through them, at least used to suppose some kind of "replacement" for that divine word. The search for meaning still had a role, for instance, in socialist societies, which supposed that every true and good action and knowledge would lead to the "new man". But today, in the apparent "end of history" this kind of desiring teleologies look outdated, and the silence seems complete.

And yet one of the greatest analysts of this development, F. Nietzsche, maintains that even after God's death (and "God" means the whole metaphysical structure that had founded our knowledge, science, etc.) we keep "the proud knowledge of the extraordinary privilege of responsibility, the consciousness of that exceptional freedom, the power on one self and one's destiny" (Nietzsche 1987, 294). Responsibility, then, is a possible starting point in the search for a common ground for the human enterprise, a possible appraisal of knowledge that is not just bound to its internal logic. And even the believer, who is convinced that he is not alone in his journey on earth

and sets the foundation of his responsibility in a transcendent calling, must come to terms with Nietzsche's phrase.

But being responsible, even in a world with silent stars and empty of gods, is an experience that is not born within a separated and nomadic subject but occurs in *front of another*. This other escapes my capacities of donation of meaning. He surprises always my intellect, and if I pay attention I discover in his concreteness and finitude something that exceeds it. Somehow the whole of reality appears bound to infinity. And the final moment of this process of recognition is the acknowledgment of infinity in the other human being.

The idea of infinity has a long philosophical history (see HWPh 11,140ff), always bound to the idea of foundation and destruction of the certainties of knowledge. It may be the very source of reality (Anaxagoras) or a characterisation of this source (Plato). It may be the destruction of the harmony that whole numbers supposed as basis of the whole reality with the discovery of irrational numbers (Pythagoras). But it may be too the destruction of an ordered and man-centric cosmos at the end of the Middle Ages with the idea of the endlessness of the Universe. And at the birth of the European Modern Age, infinity is seen by Descartes as "indication" (or proof?) of God in our consciousness and sole possibility of trusting what is perceived by our always untrustworthy senses. But in the 20th century the idea of Infinity takes an anthropological turn.

The infinity of the Other shows that our dependence on alterity is not just a contemporary dependence of technical processes or world phenomena. We depend on the Other already to be who we are. The other alters us, and by that alteration it is granted to us to become ourselves. Our identity consists in answering to a call for responsibility that springs from the other, especially from the other whose aspect does not even seem human (Is 53:3). According to Levinas this relationship is an irreducible relationship and the birth of all meaning (Levinas 1991, 79ff, 204ff). The first meaning is an ethical meaning:

the commandment of not killing or preserving the life of the Other. But of course this must be argued and “proved”. According to Levinas the “proof” or testing experience is a “radical” or “absolute” one: it commits the whole of the human subject, it bridges the capacities of knowledge and sensibility that modernity had kept apart, forcing us to choose. Like I said before, this is no congress of philosophy, so I will not go into Levinas’ phenomenology of human subjectivity. I will only say that according to him the birth of who I am lays in the answer to a call for responsibility of the other. This call embraces not just a segment of my activities. It binds my existence, and at the same time it liberates my possibilities.

Somehow this philosophical position may grant also a new vision on religious tradition. Religion may be a cluster of beliefs, institutions and customs. But if we pay attention to its “vocational” structure, a deep bond to language may be recognized. Levinas writes that the essence of language is prayer: being addressed and called to responsibility before applying the capacity of freedom (acceptance or rejection of the call), and answering with an always provisional and corrigible answer.

And in order to conclude applying these ideas to our institutions: If teaching, research and investigation are the leading ideals of our institutions, we must be aware that no teaching or research program is ever free of interests and values (Gestrinch 2005,178). And here comes a point that is crucial. Who we serve, for what we research, whose interests we defend is part of an implicit or explicit option. Before we –teachers and students– begin our technical or scientific instruction, we are already implied in a responsible relationship, whose bounds are not clear, but whose recognition may be a possible way of regaining meaning in an indigent age.

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