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Science and Religion¹

Einstein and Spinoza

One of the fundamental problems of our modern age is the relationship between the scientific-technological outlook and religion. Science and technology not only drastically changed our knowledge of the world, but also our attitudes towards many things. This is expressed succinctly and somewhat brutally by the English poet W. H. Auden:

“Space was holy to pilgrims of old
Till the plane stopped all that nonsense”

It is true that the Modern age has brought about a crisis for religion and for tradition in general. For some thinkers this was just as well: in their opinion tradition and religion really belonged to a primitive stage; they thought there was an incompatibility between Modernity or Enlightenment and religion. Yet, although traditions suffered enormously, what did not disappear was the strong desire for meaning-fullness, a desire that had always

been taken care of in religion and that did not seem to find easy fulfillment in the modern context; the result was: a strong feeling of alienation and senselessness. Perhaps without some or other kind of religion, people, generally speaking, cannot cope with life's difficulties. But then, some solution must be possible as to the opposition between science and religion: are they really irreconcilable?

In order to help us reflect on this problem, I will call a famous thinker to my aid, Albert Einstein. Everybody knows him as perhaps the greatest scientist of the last century; even quite recently some of his cosmological ideas were revived because of the discovery of difficulties with the Big Bang-theory. What is less well-known is that he has also interesting views on several philosophical problems related to our modern age. In many of these views he explicitly refers to Spinoza, a 17th century Dutch Jewish philosopher and scientist he admired enormously. Both Spinoza and

¹ Podrobnejšia verzia tejto eseje bola po prvý raz zverejnená v publikácii D.A. Boileau & J.A. Dick (edit.), *Tradition and Renewal. Philosophical Essays Commemorating the Centennial of Louvain's Institute of Philosophy*, Leuven, Leuven University Press, 1992, s. 1-13. Ďakujem vydavateľstvu Leuven University Press za povolenie nového vydania tejto eseje. Ďakujem svojmu kolegovi Arnoldovi Burmsovi za to, že upriamil moju pozornosť na Einsteinov spinozizmus, ako aj za inšpiratívne diskusie k tejto téme.



Einstein have quite unusual ideas about the relation between science and religion.

- They think, first, that science and ordinary religion — although very different from each other — are not necessarily opposed to each other. This implies that the alternative opinion that science and religion are necessarily opposed, and that one of them has to be given up, must be rejected. This thesis of non-opposition I will discuss in the first part of this paper.
- They think, secondly, that science under certain conditions can lead the scientist to a special kind of religious experience which Einstein calls “cosmic religious feeling”, and Spinoza calls “intuitive knowledge” combined with “an intellectual love of God”. In other words: not only is there no necessary opposition for the ordinary believer, but scientific activity somehow leads to a special kind of religiousness in great scientists. This thesis I will discuss in the second part of my paper.

Notice that both theses imply that there is a substantial difference between science and religion, which excludes the possibility that they could be parts of one single domain or global context.

I

It may seem paradoxical that two people so strongly devoted to science, also stress the autonomy of religion (as well as

ethics) from science. This clearly goes together with their conception of the nature of science on the one hand, and ethics and religion on the other. In all this they differ enormously from scientifically minded thinkers who see science as an anti-religious force and as capable of providing guidelines for human life replacing ethics and religion.

According to Einstein “mere (scientific) thinking can not give us a sense of the ultimate and fundamental ends.”² The “ultimate goal (in life) and the longing to reach it must come from another source”³ different from scientific reason, namely, the heart. “(Scientific) knowledge of what is does not open the door directly of what should be”⁴ In other words, science can only tell us how things are, not what must be done, not what the good is. Even the value of scientific knowledge itself does not follow from scientific insights themselves: “The knowledge of truth as such is wonderful, but it is so little capable of acting as a guide that it can not prove even the justification and the value of the aspiration toward that very knowledge of truth.”⁵

A scientific mentality cannot be a guide for life; to the contrary, an “overemphasis on the purely intellectual attitude, often directed solely to the practical and the factual, has led to the direct impairment of ethical values...; the shifting of mutual human considerations by a ‘matter-of-fact’ habit of thought has come to lie like a killing frost upon human relations.”⁶

² Albert Einstein, *Ideas and Opinions*, (New York, Dell Publishing Comp. (Laurel edition), reprint 1981), p. 51.

³ Ibid.

⁴ Ibid.

⁵ Albert Einstein, *Ideas and Opinions*, (New York, Dell Publishing Comp. (Laurel edition), reprint 1981), p. 51.

⁶ A. Einstein, o.c, p. 62.

“Without ‘ethical culture’ there is no salvation for humanity.”⁷ Spinoza and Einstein consider it impossible that for the great majority of people the scientific mentality could be the life-guiding force. On the contrary, it would mean disaster, especially if — as would be almost inevitable — science would be combined with a “matter-of-fact” habit of thought, with a purely pragmatic attitude. The only way for the great mass of people to lead a meaningful and good life is through “ethical culture”. By this Einstein means a way of life in which the striving for personal fulfillment is linked with respect for other human beings, and with a sensitivity for values which transcend petty human concerns. Introduction into a higher sort of life requires a special kind of education, through tradition and example. Up to now it has been the great religions which have made this possible.

Of course, it cannot be denied that religion is also the origin of a lot of evils in the world and in history. Yet it is futile to think that we could eradicate these evils by eliminating religion altogether, replacing it by a scientifically inspired lifestyle. If successful, this would most probably turn science into a new, false kind of religion and into an almost certainly inhuman ethics; most probably it would lead to a “Brave New World.”

According to Spinoza and Einstein, what is to be hoped for is the development of purified forms of religiousness, as has already happened with the Judeo-Christian religion. The “higher” religions are fundamentally moral religions,

strongly different from more “primitive” forms of religion largely based on fear.⁸ But even the higher forms of religion have to wage a constant fight against dogmatism and superstition (both present today in fundamentalist forms of religion). They also have to struggle against a magical attitude towards reality in which reality is conceived as if it were animated like a jealous lover or an unpredictable judge whom we have to appease or to please by our worship.

The sign of a bad religion is that it favours the spontaneous anthropocentric views and attitudes of people, their tendency to wishful thinking and their constant desire to influence things in their favour. The sign of a good religion is that it gives people real peace of mind through the contentment of living in harmony with God and that it leads to works of charity and justice. According to Spinoza, what is central to purified religion is obedience to God which cannot exist without works of goodness. A truly religious person, says Einstein, “appears to me to be one who has, to the best of his ability, liberated himself from the fetters of his selfish desires and is preoccupied with thoughts, feelings and aspirations to which he clings because of their super-personal value.”⁹

Of course, religion is of necessity closely linked to traditions, stories, examples, rites, ... even dogmas. Obedience and goodness do not operate in a mental vacuum: the heart does not work without the imagination. But none of these elements should be separated from the practice of charity and justice and prayer to God.

⁷ Ibid.

⁸ A. Einstein, o.c., p. 47.

⁹ A. Einstein, o.c., p. 53.

People capable of living such a religious life will experience in their hearts peace and contentment, “the mental acquiescence which follows a good action in our souls.”¹⁰ Real blessedness consists in such state of inner peace and harmony with God and other men. Salvation is not brought about by possessing some or other information or professing such and such beliefs, but by religious and moral practices in which the individual escapes the usual self-centeredness and restlessness. Characteristic of the true believer is a quiet faith without hesitation or mental aversion,¹¹ which is exactly the opposite of an anxious desire for absolute certainty often linked with a proneness to excessive doubt and wavering of the mind. Or, as Einstein puts it, the truly religious person “has no doubt of the significance and loftiness of those super-personal objects and goals which neither require nor are capable of rational foundation.”¹² His heart being at peace, if science tells anything which

seems at odds with his religious beliefs the believer will quietly wait and see whether science will continue to put forward the same idea, or he will suppose that, in some way he cannot yet foresee or penetrate, the opposition will turn out to be only apparent.

Both Einstein and Spinoza agree that science can be a real threat to religion, but only to the dogmatic, superstitious and magical kind. This last sort of religion sees itself as the jealous guardian of eternally fixed literal truths which, although

really themselves lifeless, have the terrible power to suffocate life. This sort of religion sees itself as the arsenal of magical tricks for influencing reality, and therefore it has everything to fear from the real efficacy of scientific technique.

However, it is also possible that science “helps” religion to purify itself from superstitious and magical elements: by forcing religion to come to a better awareness about the difference between faith and scientific belief, and between religious attitudes and magical or pragmatic attitudes. As Einstein says: “true religion has been ennobled and made more profound by scientific knowledge,”¹³ not so much because scientific insights have been taken into account, but because science has forced religion to purify itself as religion. The greatest threat for religion does probably not arise from scientific knowledge as such, but from what Einstein calls the “matter-of-fact” attitude. This is the purely pragmatist attitude which came in the wake of the scientific-technological developments and their impact on human attitudes and society at large. The expectation of a paradise on earth through science and technology, and without any need for altruism and self-restraint, is possibly no more than a paradoxical version of bad religion, but this time combined with magical trust and expectation in science, and scientifically coloured wishful thinking.

It should be made absolutely clear that all this implies no condemnation of science and technology as such: it is a condemnation only of certain consequences

¹⁰ B. Spinoza, *A Theologico-Political Treatise and a Political Treatise*. Transl. R.H.M. Elwes (New York, Dover Publ., 1951), c. XV, 198; only the *Theologico-Political Treatise* (=TTP) is used here.

¹¹ TTP, c. XIV, p. 188.

¹² A. Einstein, o.c., p. 54.

¹³ A. Einstein, o.c., p. 57.

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they tend to have in a certain context. What it perhaps does show is that a sober and ethical stand with respect to science and technology could greatly depend on the existence of a purified religiousness.

II

Although the earlier mentioned views about the relation between science and ordinary religion are far from common, it is particularly the other thesis which is most audacious and paradoxical: the thesis that a science which completely disregards normal human aspirations and spontaneous human views can be linked closely to contemplation and salvation.

Einstein understands the link between this experience and science, in the following manner¹⁴: in the course of his scientific work, the scientist is confronted with the unfathomable Wonder and Rationality of Nature, with respect to which all human comprehension is insignificant. This contact with the Impersonal Mystery of Nature may produce an experience of deep awe and wonder.

Einstein is quite convinced of the similarity of his “cosmic religious feeling” with the experiences of mystics over the ages (he refers to Buddha, Francis of Assisi). Since they could not possibly be engaged in scientific activity, there must be other elements in other contexts which are also able to provide the occasion for such experiences.

I will go further and claim that even in the life of ordinary people there are happenings which resemble these contemplative experiences to a certain degree. Drawing attention to this may retrospec-

tively clarify what Einstein and Spinoza are talking about.

The phenomena I have in mind are everyday phenomena: a certain kind of mild or tender smile, or the experience of wonder. The relationship between the smile and mystical experience may not be immediately evident, but it is not too farfetched either: we only have to remind ourselves of the mysterious and peaceful smile of the Buddha.

Smiling ... Think of the tender smile of the father who is suddenly confronted with the charming clumsiness and vulnerability of his young child. Think of the smile with which we observe the busy and often futile activities of our fellow human beings while being ourselves at peace. The father may even suddenly be confronted with himself and his own smile, and smile about himself. The peaceful observer may become aware of and smile at his own observation and smiling.

What happens in such experiences is not just dissociation from ordinary living and its daily concerns. By dissociation I mean here a kind of objectification in which one reduces what one sees to a mere object, and in which the observer takes an external standpoint, dissociating himself totally from what he sees. Such dissociation would not bring about a smile, but rather rejection, demystification or indifference. The smile however presupposes not objectifying dissociation, but a kind of distancing from normal activities and relationships which paradoxically goes together with their acceptance: in distancing, one has never been closer (even though — as in the case of the father — there is no real reciprocity). The

¹⁴ A. Einstein, o.c, p. 50; pp. 57-8.



smile implies a sudden recognition of the fundamental vulnerability, contingency of what we care about, by seeing it against a background which reveals this contingency and vulnerability. So, in a sense, the “truth” of what we care about is revealed to us in the smile, but in such a way that this “truth” is acceptable, such that things are now even more dear to us. In the smile, there is distancing but without extracting oneself from what one sees, without moving to an external position where we would still take ourselves for granted, where we would still be safe and superior. It is not in the objectifying dissociation that the “truth” about ourselves is revealed, but rather in the smile.

The paradoxical relationship to the object of the smile is matched by a paradoxical relationship to ourselves: the normal self-confidence is broken, but without leading to panic or to self-rejection — one experiences at the same time self-loss and self-acceptance.

There is a close relationship between smiling (different from laughter) and the experience of wonder, which is the second everyday phenomenon I want to draw attention to. By wonder, I do not mean the active, inquisitive kind of wonderment which asks itself how this could be related to that (this is of course the scientific kind of wonderment or puzzlement). I am thinking instead of a more contemplative kind of wonderment, i.e. amazement at the infinitely suggestive “richness” of a human face, a flower...; experiences befalling us at moments we cherish as a kind of grace from above. Again, such moments of wonder cannot be had when we are

too busy, too preoccupied with ourselves, too worried. They presuppose a special, peaceful mood, a temporary neutralization of the ordinary unending, unsatisfiable agitation; they require, in short, a quietude, clearing the ground for the existential revelation of “the truth” concerning our activities and relationships.

Again, such moments of wonder presuppose the sudden experience of a contrast between certain familiar things (things we already value in some or other way) and a certain background. It is this suddenly felt contrast which brings about a new experience of the familiar thing, an experience in which things are as it were seen anew, in their “deeper reality”, as mystery. What is revealed to us in scientific wonderment are intricate relationships, the solution of which satisfy our curiosity and put an end to our wonderment. What is revealed in contemplative wonder is mystery. This mystery disappears the moment one takes on a scientific attitude, trying to understand how the elements of the problem fit together. As L. Wittgenstein states:

“The mathematician too can wonder at the miracles (the crystal) of nature of course; but can he do so once a problem has arisen about what it actually is he is contemplating?”¹⁵

Mystery only appears to someone who is open and sensitive to the ways familiar things can, against a certain background, suddenly light up with an unexpected richness of meaning. The fullness of meaning is not incompatible with an

¹⁵ L. Wittgenstein, *Culture and Value*, Edited by G.H. von Wright, in collaboration with Heikki Nyman. Trans. by Peter Winch (Oxford, Blackwell, 1980), p. 57.

awareness of finitude, vulnerability and contingency; on the contrary, without this awareness the experience would not come about. The father's experience of the quasi-infinite value of his child does not deny the vulnerability, the almost terrible insignificance of the child; but rather presupposes it: it is as if there could be no infinite value except in and through the small and negligible and vulnerable. This experience depends on the sudden confrontation of what is dear and vulnerable to us with a context which makes it appear insignificant; the result of this sudden confrontation is an experience of utmost tenderness for the mystery of the child. In the same way one can be struck by the enormous contrast between our infinite love and the insignificance of what we love, — without this contrast taking away the love, quite to the contrary.

The sensitivity to mystery is incompatible with an activist pursuit of all sorts of goals, or with the desperate looking for a goal. It requires a mentality in which attention is sufficiently free and receptive for the appearance of mystery.

This appearance cannot be produced at will: the very attempt to produce the appearance of mystery must turn it into something uninteresting, fake; the becoming unfamiliar of the familiar and its acquisition of a new splendour must be left to fate.

Deep happiness which is felt in wonder and smiling has nothing to do with collecting as many nice experiences as possible, with “feeling good” as much as possible. The insatiable search for nice experiences shows very probably the degree to which people are unhappy. Real happiness — as the term itself indicates — consists in the unexpected “happening”, in the luck

to encounter new, fresh meaning, which, as the Dutch poet Leopold said, is a contact with “the richness of the finite,” the eternity of the temporal and provisional.

It is my impression that the structure of the ordinary life experiences of smiling and wonder is fundamentally the same as the religious experiences Einstein and Spinoza are talking about. I try now to enumerate the fundamental elements related to this structure:

- A pre-condition is a certain freedom from ordinary concerns, or a certain peacefulness and unselfishness of the mind;
- Something which we value, or are familiar with, must suddenly come in contrast with a background whereby it is infused with new meaning or significance;
- This leads to an experience in which not only the finitude of the richness is accepted, but in which at the same time the background, or the Whole or Other can momentarily be confronted in joy and without terror.

All these elements play a role in Einstein's “cosmic religious feeling” and in Spinoza's “intuitive knowledge”. However, the object of contemplation here is the self itself in its scientific activity. The background against which this activity of the self is suddenly experienced in a new way is the background of Nature already understood — in the margin of science — as a non-personal, indifferent Other. The experience of the “truth” about oneself is at the same time an experience of the whole of Nature as something absolutely Other, and yet at the same time as the ground of our being, even of our very contemplation.

In this experience the ground appears not as terrifying Indifference, but as something we can praise.

I agree here completely with Timothy Sprigge's assessment of Spinoza's intuition when he says that the intellectual love of God means more than "simply the enjoyment of one's own powers of thought... for Spinoza it implied something of a more mystical nature, some rapturous sense of one's oneness with the cosmos at large, and of its essential oneness in all its varying phenomena"¹⁶ He adds also this interesting observation: "... (Spinoza) is somewhat at one with aspects of Hindu feeling which find something to reverence in the terrifying side of nature, as well as in its benign side."¹⁷

It is not possible to contemplate all the time, to constantly enjoy mystical experiences. Nevertheless, these experiences may have a lingering effect on "ordinary" activity, which for Einstein and Spinoza is not so much daily living but especially scientific investigation, or to put it better,

scientific meditation.

The moments of ecstatic joy and of loving acceptance of our own insignificance in the light of Nature may help the scientist to lead a better sort of life: a life less prone to self-delusion, more true to his real nature. The point of such a life is no longer simply to get one's name in the newspaper or on the Nobel-prize list, nor to discover something useful; it is to disinterestedly look for the truth as such, knowing that this will always escape (because the real Truth — what it all means — is revealed, if at all, in contemplation).

Strangely enough, such a life resembles the good life of the true believer somehow: without fear or compulsion he trusts that his fate is in the hands of the Other; he hopes that he will be rewarded, he does what he has to do, being good and just to others, but he does not concentrate on the reward. As Spinoza says: such a life of "bene agere et laetari" (of acting well and rejoicing), is its own reward.¹⁸

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¹⁶ Timothy Sprigge, *Theories of Existence* (Harmondsworth, Penguin Books, 1984), p. 174.

¹⁷ T. Sprigge, p. 158. Jon Wetlesen also has extensively investigated similarities between Hindu and Buddhist thinking and Spinoza; see: Jon Wetlesen, *The Sage and the Way. Spinoza's Ethics of Freedom* (Assen, Van Gorcum), 1979.

¹⁸ B. Spinoza, *Ethics*. Edited, with a revised translation, by G.H.R. Parkinson (London, Dent (Everyman), 1989), p. 190 (Eth. IV, Prop. LXXIII, Note).

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