

Einstein on Independent Thought

[T]he ancients knew something which we seem to have forgotten. All means prove but a blunt instrument, if they have not behind them a living spirit.¹

Albert Einstein

Recently I found a copy of Albert Einstein's Ideas and Opinions in a used bookstore. I opened the table of contents to a collection of essays, speeches, statements, and letters on freedom, education, science and religion, pacifism, classical literature, scientific work and $E=MC^2$. Then I turned a page and came across the following sentence, "There are only a few enlightened people with a lucid mind and style and with good taste within a century."

Who would dare to make such a statement?

Einstein.

I read on and turned to the chapter "Education for Independent Thought," published in The New York Times, October 5, 1952, which began

It is not enough to teach a man a specialty. Through it he may become a kind of useful machine but not a harmoniously developed personality. It is essential that the student acquire an understanding of and a lively feeling for values. He must acquire a vivid sense of the beautiful and of the morally good. Otherwise, he—with his specialized knowledge—more closely resembles a well-trained dog than a harmoniously developed person. He must learn to understand the motives of human beings, their illusions, and their sufferings in order to acquire a proper relationship to individual fellow men and to the community. . . . These precious things are conveyed to the younger generation through personal contact with those who teach, not—or at least not in the main—through textbooks. It is this that primarily constitutes and preserves culture. This is

what I have in mind when I recommend the “humanities” as important, not just dry specialized knowledge in the fields of history and philosophy.²

I was reminded of a public lecture some years ago at my university given by a former graduate currently employed by Dow chemical company. He spoke of the quality of his undergraduate education and of his position as the director of a team of scientists working in the area of superabsorbent polymers for diapers. At the end of his presentation, he answered several general questions before a student asked, given the volume of disposal diapers filling landfills, if the diapers were biodegradable. The speaker complimented the student on his question and responded that biodegradable material was not his area of research, but surely a problem being addressed elsewhere.

Clearly, our graduate had mastered a specialization in the area of super-absorbents for his company and, in turn, applied his research to create “new and improved” disposable diapers which helps parents clean up the mess around the house. However, while the disposable diaper saves millions of gallons in laundering the soils of daily life, it adds up to 18 billion diapers, or 82,000 tons of plastic and 1.3 million tons of wood pulp -- 250,000-- trees a year being trucked away to landfills. Theoretically, the bacterial remains might even infest the water.

Einstein makes the distinction between the training of students for the means of life in specialized professions, such as computer scientists, business administrators, counselors, chemists, speech pathologists, graphic artists, accountants, designers of kitchens and bathrooms, nurses, physicians or undertakers, who are all prepared to perform procedures and execute techniques, and educating them for the ends of life, which offers a vivid sense of the beautiful and of the morally good.

The scientist as scientist lacks a directive principle and the prescience to understand the outcomes of his research, seeing, as it were, through a glass darkly, a part of the picture but not its entirety. There is a difference between knowledge derived from past observations and forethought. Einstein, in speaking to the ends of science, states

For the scientific method can teach us nothing else beyond how facts are related to, and conditioned by, each other. The aspiration toward such objective knowledge belongs to the highest of which man is capable, and you will certainly not suspect me of wishing to belittle the achievements and the heroic efforts of man in this sphere. Yet it is equally clear that knowledge of what “is” does not open the door directly to “what should be.”³

In short, you cannot derive what ought to be done from what can be done. The directive principles for establishing goals and determining value is derived from a vivid sense of the beautiful and of the morally good.

Man is more than his corporeal self.

Einstein continues,

Intelligence makes clear to us the interrelation of means and ends. But mere thinking cannot give us a sense of the ultimate and fundamental ends . . . [a]nd if one asks whence derives the authority of such fundamental ends, since they cannot be stated and justified merely by reason, one can only answer: they exist in a healthy society as powerful traditions, which act upon the conduct and aspirations and judgments of the individual. . . . They come into being not through demonstration but through revelation, through the medium of powerful personalities ⁴.

Revelation?

In these times of the compartmentalization of knowledge, the college graduate is too often simply trained to perform the tasks which his employer hopes he can perform. Most modern students are not well-rounded; they have little sense of tradition, having only a textbook survey of history, one course in literature, no foreign language, several elementary composition courses, elementary math, a choice between several textbook driven social science courses, and, at my university, an introductory economics course, though none are required to take ethics or read

philosophy. While a student will have a rudimentary understanding of economic systems and the means of how the economy works or does not, he will not discuss the ends of life nor have an idea of how to distinguish between courage and cowardliness, generosity and greed, self-control and self-indulgence, gentleness and apathy, motivation and sloth, all of which are necessary in the self-examination of a life that is worth living. In effect, too many universities are turning out human beings who lack humanity.

What did former head of the Federal Reserve Allen Greenspan's well-trained economic genius do for our country? When sitting before a Senate hearing, he admitted he had not foreseen that there would be greedy investment bankers who would fill their pockets while draining those of their fellow citizens, "I made a mistake in presuming that the self-interest of organizations, specifically banks and others, was such as they were best capable of protecting their own shareholders."

They are fixated on what Aristotle calls the goods of the body, or external goods, without any sense of the goods of the soul and, hence, are unaware of the moral and intellectual virtues which are manifested in the actions necessary to become mature adults.

Einstein thinks that a person who lacks a sense of moral values is like a blunt instrument who may well unquestionably follow those whom he deems to be his superiors without ever asking himself if what he is doing is beautiful and morally good.

Einstein reminds one of Aristotle when making the distinction between a university graduate being trained to be a kind of useful machine as opposed to being educated towards a harmoniously developed personality. Aristotle thought that a person who did not develop the intellectual and moral virtues through a liberal education fitting for a free man is a slave to be used as an instrument by his master. In Aristotle's words:

It is also from natural causes that some beings command and others obey, that each may obtain their mutual safety; for a being who is endowed with a mind capable of reflection and forethought is by nature the superior and governor, whereas he whose excellence is

merely corporeal is formed to be a slave; whence it follows that the different state of master and slave is equally advantageous to both⁵

Neither Einstein nor Aristotle are religious, the former thinking God a creation of primitive man to answer his fear of nature and the latter viewing God as the uncaused cause who set the cosmos to order, which is grasped by the faculty of reason placed in man by God. Einstein thinks the principles of morality a “cosmic religious feeling” which he finds difficult to elucidate, “to anyone who is entirely without it, especially as there is no anthropomorphic conception of God corresponding to it ⁶”.

What is a student to do?

He must learn to understand the motives of human beings, their illusions, and their sufferings in order to acquire a proper relationship to individual fellow men and to the community. . . . These precious things are conveyed to the younger generation through personal contact with those who teach, not—or at least not in the main—through textbooks. It is this that primarily constitutes and preserves culture.⁷.

Einstein is opposed to textbook education and sees that the students need personal contact with those who read the stories of humanity with students, much like parents read tales to their children to teach them values. He must learn to understand the motives of human beings, their illusions, and their sufferings in order to acquire a proper relationship to individual fellow men and to the community. . . The character of human beings is seen in Adam and Eve’s disobedience, Benedict Arnold’s treachery, Sam Gamgee’s loyalty, Fyodor Karamazov’s lust, Scrooge’s selfishness, Madame DeFarge’s vengeance, Alyosha’s love, as well as in pondering what Charles Myriel tells his sister in Les Misérables, by Victor Hugo:

Have no fear of robbers or murders. Such dangers are without, and are but petty. Prejudices are the real robbers; vices the real

murderers. The great dangers are within us. What matters it what threatens our heads or our purses? Let us think only of what threatens our souls⁸.

A machine and a dog, however well-trained, lack souls—the living spirit—and, being incapable of self-reflection, are lodged in a state beneath that of man. That man has the capacity for self-determining thought, through which he thinks about his motives and the value of his actions, is at the basis of a harmonious personality.

In “A Message to Intellectuals,” August 29, 1948, Einstein notes,

By painful experience, we have learned that rational thinking does not suffice to solve the problems of our social life. Penetrating research and keen scientific work have often had tragic implications for mankind, producing, on the one hand, inventions which liberate man from exhausting physical labor, making his life easier and richer; but on the other hand, introducing a grave restlessness into his life, making him a slave to his technological environment, and—most catastrophic of all—creating the means for his own mass destruction.⁹

Einstein saw what some scientists did under Hitler when offered a salary, life with their families, and laboratories for their research in the areas of genetics/eugenics/race hygiene which were used in the mass sterilization and euthanasia programs. Being unable to generate wealth to equip laboratories scientists can be at the mercy of politicians and corporate benefactors, so technology becomes especially dangerous when, “they have fallen into the hands of morally blind exponents of political power. . . . [a] power in the hands of small minorities which have come to dominate completely the lives of the masses of people who appear more and more amorphous”¹⁰[358].

The person whose excellence is merely corporeal, body without soul, is an instrument and, if he has a good master, it is best that he be used as such, given he is incapable of reflection and forethought—his life is an

afterthought. Aristotle makes the further distinction between instruments being inanimate and animate. Though a machine is inanimate, a slave belongs to a class of animate objects purchased to pursue his master's directions, which are in his best interest to follow.

As in all arts which are brought to perfection, it is necessary that they should have their proper instruments if they would complete their works, so is it in the art of managing a family: now of instruments some of them are alive, others inanimate, thus with respect to the pilot of a ship, the tiller [rudder] is without life, the sailor is alive, for a servant in many arts. Thus property is as an instrument to living; an estate is a multitude of instruments; so a slave is an animated instrument, but every one that can minister of himself is more valuable than any other instrument . . .¹¹

In effect, all men who have developed their souls are like accomplished musicians as they direct themselves in the art of preparing a meal, reading to children, piloting a ship, or mowing the grass. The person that can minister of himself moves by a directive principle which he wills into action.

Man, according to Aristotle, is composed of a body and a soul. The freeman uses his soul to rule over his body. If the body rules over the soul, the corruptible will be guiding the incorruptible, and this is simply not a good idea. If the body were to rule over the soul this would be an "unnatural condition, as it is clear that the rule of the soul over the body, and of the mind and the rational element over the passionate, is natural and expedient; whereas the equality of the two or the rule of the inferior is always hurtful."¹²

Slavery is the condition of the body ruling the soul, of the belly and/or the groin making decisions, as it were, instead of the soul focusing upon principles and living by conviction. A slave is a person who cannot restrain himself before the appetites of the body and the excessive desire for external possessions. This form of slavery is not a condition that can be abolished by a proclamation. Every person has the potential to fall into

slavery — priests, garbage men, plumbers, corporate executives, professors, college administrators, etc. It is an old adage, if you cannot control yourself, you will be controlled.

This reminds us of G. K. Chesterton:

Quick machinery worked by slow men will be slow machinery; efficient machinery worked by inefficient men will be inefficient machinery; exact machinery worked by inexact men will be inexact machinery; good machinery worked by bad men will be bad machinery. For there is nothing that is really cut off from man or really independent of him in the whole human world. All tools are, as it were, his extra limbs.¹³

What is going to happen when in the midst of all the instruments and machinery, the soul of man becomes numb, and he is sapped of vitality as is marked by an active imagination, initiative, courage, moderation and fidelity? When he no longer uses a hoe, a spade, a pick or a computer but becomes a hoe, spade, pick or computer to be used by another person. That is what it means to be a slave.

Will we look to the politicians to bail us out?

¹ Einstein, Ideas and Opinions, trans. Sonja Bargmann, (New York: Three River Press, 1954), 44.

² Ibid, 66.

³ Ibid, 41-42.

⁴ Ibid, 42-43.

⁵ 1251a, Aristotle, Politics.

⁶ Ibid., 38

⁷ Ibid, 43.

⁸ Victor Hugo, *Les Miserables*, trans. Charles Wilbour (New York: Everyman's Library, 1909), 34-35.

⁹ 148.

¹⁰ 358.

¹¹ 1253b.

¹² 1254b 5-10.

¹³ The Collected Works of G. K. Chesterton, Vol. , Illustrated London News, August 4, 1906 (San Francisco: Ignatius Press, 1990)