ISSN 1712-8056[Print] ISSN 1923-6697[Online] www.cscanada.net www.cscanada.org

### **Socrates, Science and Technology**

## Francis Offor[a],\*

[a]Ph.D., Department of Philosophy, University of Ibadan, Ibadan, Nigeria.

\*Corresponding author.

Received 16 May 2012; accepted 10 August 2012

#### **Abstract**

This essay examines the contributions of Socrates to the development of Greek thought and philosophy and the import of these contributions for developments in contemporary science and technology. Science and technology, today permeate the essential compartments of our lives, but the Socratic injunction for science to go hand-in-hand with ethics has been jettisoned by contemporary science. This, the essay argues, is the source of contemporary ills accompanying the various scientific feats. Paying attention to the Socratic injunction, the essay concludes, is one sure way of giving science and technology a humane face and thereby put both properly at the service of mankind.

**Key words:** Ethics; Dialectics; Technology; Development; Human values

Francis Offor (2012). Socrates, Science and Technology. *Canadian Social Science*, 8(4), 101-107. Available from http://www.cscanada.net/index.php/css/article/view/j.css.1923669720120804.1145 DOI: http://dx.doi.org/10.3968/j.css.1923669720120804.1145.

### INTRODUCTION

The name 'Socrates' is central to the construction of the history of Greek thought and civilisation. Although the

history of philosophy is usually divided into four major parts viz: Ancient, Medieval, Modern and Contemporary, but the Ancient period is the most crucial; crucial in the sense that it serves as the tank in which the prototypes of later philosophies can be found. Socrates existed in the Ancient period which itself encompasses three major periods. These are, the Pre-Socratic, the Socratic and the Post-Socratic periods. Socrates was the first of the Greek philosophers who represented the Socratic period; a period which has been aptly described as "the golden age of Greek philosophy" (Omoregbe, 1990, p.89). So, Socrates represents a major landmark in the history and development of Greek thought and civilisation. He acts not only as a bridge between the early beginning of Western philosophy and the more sophisticated era of philosophising, but also as the pathfinder who provides the much needed foundation and inspiration upon which Plato, Aristotle and other philosophers of this era have to make a recourse to, for strength and intellectual finesse. Like Jesus Christ in the Holy Bible, Socrates left no writings even though he was not an illiterate.<sup>2</sup> And also like Jesus, all that we know about Socrates and his thoughts come from the writings of men, most of whom were greatly influenced by his life and teachings (Guthrie, 1963, p.327). In the matter of historical information however, we are much better with Jesus than with Socrates because Jesus was portrayed by simple uneducated people,<sup>3</sup> but Socrates, by literary men who exercised their creative ability upon his portrait. This has produced a very complex 'picture' of Socrates; a picture which has made the quest for finding the meaning and relevance of Socrates for oneself, perennial.

<sup>&</sup>lt;sup>1</sup> Some authors further divided the 'Post-Socratic period' into the Aristotelian and Neo Platonic Periods.

<sup>&</sup>lt;sup>2</sup> The claim here is not that Socrates wrote nothing at all, but rather, that he left behind no philosophical writings. If the Phaedo is to be believed, then Socrates wrote a hymn to Apollo and he also versified the fables of Aesop in his last days in prison.

<sup>&</sup>lt;sup>3</sup> Recall the remarks of the Jewish religious leaders in Acts 4: 13 that Peter and the other apostles of Jesus were "unlearned and ignorant men." See the Holy Bible (King James Version).

In this essay, attempt is made to exhume from Socrates' philosophy, those sterling contributions that are today complementary to various efforts at bringing a dose of ethics into science and technology, and properly putting both at the service of mankind. We start by examining the life and character of Socrates in the hope that these influenced his contributions to the development of Greek thought and philosophy. Then, we reflect on the import of his contributions to philosophy for developments in contemporary science and technology. Science and technology today permeate the essential compartments of our lives, but the Socratic injunction for science to go hand-in-hand with ethics has been jettisoned by contemporary science. This, the essay argues is the source of contemporary ills accompanying the various scientific feats. Paying attention to the Socratic injunction, the paper concludes, is one sure way of giving science and technology a humane face and thereby put both properly at the service of mankind.

### SOCRATES' PORTRAIT

Born in Athens around 489 BC to Sophroniscus a sculptor, and Phaenarete a midwife, Socrates was married to Xanthippe and had three sons. In appearance, Socrates was universally admitted to be extra-ordinarily ugly, but it was the kind of ugliness which fascinates. His chief features were, a broad flat and turned up nose, prominent staring eyes, thick fleshy lips and a paunch, or as he phrases it himself, "a stomach rather too large for convenience" (Guthrie, 1963, p.386). He became bald in later years. Socrates is said to have a characteristic way of looking at people which was unforgettable but hard to describe.

However, Socrates was very comfortable with his features which he assessed strictly from a teleological standpoint. To him, the criteria for judging the beauty and goodness of anything should be its utility and fitness for function. This attitude of Socrates is more clearly seen in chapter five of *The Symposium*. Here, Xenophon describes an engaging beauty competition between the ugly Socrates and the handsome young Critobulus who had challenged Socrates to prove by his method of cross-examination, that he is the more handsome. Socrates argues that beauty or goodness of anything is to be determined by its utility and fitness for function. For instance, Socrates was able to convince Critobulus that his eyes are more beautiful than Critobulus' because Critobulus' eyes looked straight ahead, whereas his own projected, so that they could see sideways as well. Plato's Hippias better summarizes Socrates' linkage of goodness and beauty with utility:

We do not say that eyes are beautiful when they are without the power of sight: We do when they have that faculty and so are useful for seeing.... Similarly, we say that the whole body is beautifully made, sometimes for running, sometimes for wrestling, and speak in the same way of all animals (Hare & Russell, 1970, p.198-199).

Socrates gave no thought to appearance and was indifferent either to the care of his body or clothing or to the absence or presence of material pleasure. Socrate's friends remarked Guthrie (1963), "had to admit that to see Socrates newly bathed and wearing shoes was unusual and marked a special occasion" (p.89). Socrates had extra ordinary power for self discipline and perseverance. Omoregbe (1990) captures this sterling quality of Socrates in this way:

He was indifferent to cold, heat, hunger, thirst, life or death. He could go about barefooted even in the cold winter, walking on ice and wearing ordinary plain clothes (p.89).

Socrates evinced some of these qualities during his services in the military where he was said to have "walked over the icy ground in the dreaded Thracian winter unshoed and otherwise clad as at home" (Guthrie, 1963, p.389) -- a practice which according to sources, did not endear him to the other less daring soldiers who interpreted the action as an attempt by Socrates to humiliate them. As for drink, Socrates was able to outdrink anyone, yet no one had ever seen him drunk. One of Plato's dialogues, *The Symposium*, recorded a drinking encounter involving Agathon, Aristophanes, Socrates, Aristodemus and others. The effects of the drinking were visibly seen in all of them except Socrates (Hare & Russell, 1970, p.237).

Socrates also had the extra-ordinary power of going into a trance and remaining lost in thought for a long time during which he would be oblivious of things around him. In *The Symposium*, Plato told us about an instance of Socrates going into a trance and forgetting everything around him when he was on his way to a dinner party with a friend named Aristodemus (Hare & Russell, 1970, p. 187-189). Socrates was a man of vigour, imbued with all the endowments of courage and moral excellence. He saw himself as a man who was entrusted by God, with the divine mission of philosophising and he considered this mission a sacred duty about which there could be no compromise. This was the major reason during his trial, he rejected the entreaties of his persecutors that he should stop teaching philosophy. To Socrates, the call to teach philosophy was the call of God and like Simon Peter who declared his preference for God's instruction before the Jewish Sahendrin, <sup>4</sup> Socrates also preferred in this matter "to obey God rather than men" (Acts 4, vs 19; 5 vs 29), and he was willing to do this at the expense of his life. This commitment to philosophy could be seen during his self defense at his trial in the *Apology* where he said inter alia: "... and while I have life and strength, I shall

<sup>&</sup>lt;sup>4</sup> The Sahendrin is the Jewish council of religious leaders.

not cease from the practice and teaching of philosophy" (Omoregbe, 1990, p.90).

Socrates was a moralist and this manifested in his words and deeds. As a moralist, he was interested in any kind of knowledge that would lead to good human conduct and he condemned all vices and acts of wickedness which he attributed to ignorance. In the midst of the thriving injustices in the Athenian society of his days, Socrates lived strictly according to his moral principles and refused, on several occasions, to collaborate in the evil designs of the government of the day, even when he had the opportunity of being part of these designs. For example, in 404 BC, Socrates, as a member of the committee of the senate, refused to take part in the judicial murders of wealthy citizens by the newly established Oligarchy of the Thirty. On a particular occasion, Socrates and four others were detailed to arrest and murder Leon of Salamis whose property the ruling class wished to covet. But what happened? The others obeyed and Leon was arrested and killed, but Socrates "went quietly home" (Hare & Russell, 1970, p.75).

It is therefore not surprising for a moral reformer like Socrates to become very unpopular with the rulers of the State who were then riding on the crest of injustices and high-handedness. He was therefore arrested under the orchestrated charges of 'impiety' and 'corrupting the youths'. As Plato puts it:

But by some mischance, some of those in power brought my friend Socrates on trial on an infamous charge, the last that should even have been brought against him (Guthrie, 1963, p.381).

The full version of the indictment against Socrates is reproduced here by Guthrie (1963):

This indictment is entered on affidavit by Meletus, son of Meletus of the Deme Pitthus against Socrates son of Sophroniscus of Alopeke. Socrates is guilty of refusing to recognize the gods recognized by the state and introducing other new divinities. He is also guilty of corrupting the youth. The penalty demanded is death (p.382).

Socrates was therefore tried, convicted and sentenced to death in a case in which the operators of the Athenian government had vested interest. For instance, Meletus, the chief accuser of Socrates was described by Socrates himself as a puppet who was chosen by the 'powerful Anytus' for the enthusiasm with which he could press the religious charges. The basis of Meletus' accusation that Socrates is introducing strange gods is what Socrates calls the *daemonion*. In one of Plato's works entitled *The Apology*, Socrates himself describes the *daemonion* as:

a super human oracle or sign which comes to me....This sign which is a kind of voice first began to come to me when I was a child; from time to time it forbids me to do something which I am going to do, but never commands anything (Hare & Russell, 1970, p.74).

This *daemonion* is the customary sign Socrates needed to restrain from any activity that has evil consequences.

This was the reason he accepted his condemnation with equanimity; for he was never restrained in the whole process by this customary prophetic voice. Hence after his condemnation, Socrates told his friends:

Hitherto, the divine faculty of which the internal oracle is the source has constantly been in the habit of opposing me even about trifles, if I was going to make a slip or error in any matter; and now as you see, there has come upon me that which may be thought, and is generally believed to be, the last and worst evil. But the oracle made no sigh of opposition, either when I was leaving my house in the morning, or when I was on my way to the court, or while I was speaking, at anything which I was going to say; and yet I have often been stopped in the middle of a speech, but now in nothing I either said or did touching the matter in hand has the oracle opposed me (Hare & Russell, 1970, pp.82-83).

Socrates interprets the oracle's silence as intimation that what has happened to him is a good; for the customary sign would have opposed him if he were going towards evil. Being convinced therefore that the death which awaits him cannot be an evil, Socrates remained undaunted and deliberately blew up the opportunities he had to change the verdict, for even after the 'verdict of guilt', the Athenian law still permitted the accused person to propose a lighter punishment which the judges may accept by voting. This opportunity was also given to Socrates but being convinced that he had done no harm but a great deal of good to the city, he counter-proposed that he should be granted free meals in the prytaneum a privilege awarded to Olympic victors and others, who brought honours and benefits to be state. This request must have angered the assembly who now voted for the death penalty "by a somewhat larger majority than had secured the verdict of guilt" (Guthrie, 1963, p.384).

Normally, the sentence would have been carried out and Socrates executed at once, but a particular circumstance delayed it. Every year, the Athenians sent a ship to Delos on a religious mission in fulfillment of an ancient vow made to Apollo (the Greek sun-god and patron of archery), after the success of Theseus in putting an end to the annual tribute of young lives paid to the Minotaur in Crete. From the day the ship is sent out until it returns, the city was kept in a state of religious purity which did not allow public executions to take place. This ship had been dedicated on the day before Socrates' trial and it was estimated to spend one month on its journey. Socrates was therefore kept in prison for one month pending the arrival of the ship. While in prison, Socrates stood by his moral principles for which he was noted. Thus, when Crito and some of his friends perfected a plan for his escape from prison, Socrates rejected such an offer on the ground that it would be wrong not to abide by the demands of the law, the protection of which he had enjoyed since his youth. Socrates was eventually executed in 399 BC, a month after the court's verdict that condemned him. He died by being made to drink hemlock.

## SOCRATES AND THE DEVELOPMENT OF GREEK THOUGHT AND CIVILISATION

Socrates was by no means a wealthy man. So his contributions to the development of Greek thought and civilisation were not in any way material. His contributions were mainly in the form of ideas. Socrates transmitted his ideas, not through writing or giving of public lectures to large groups of people, but through dialogue or what has come to be known as *dialectics*. Although *dialectics* here is not exactly the same as the Hegelian or Marxian dialectic in which progress is portrayed as resulting from a resolution of the conflict between two opposing forces, yet Hegel cannot deny his indebtedness to Socrates in his formulation of his method of dialectic, since this element of 'progress' which formed the nexus of Hegel's dialectical method was what was emphasized by the Socratic Method.

The Socratic Method consists of "conversing with people, asking them questions and helping them to seek the answers" (Omoregbe, 1990, p.92). Socrates was convinced that knowledge was, in principle, attainable, but that if there was to be any hope of attaining it, the debris of confused and misleading ideas which filled most men's mind must first be cleared away. Only after this, could the positive search for knowledge begin. By employing the method of dialogue, Socrates was able to elicit by questions, the knowledge which he assumed a person already possessed but had been unable to formulate or use. This method is appropriate because of his conviction that men, just like pregnant women, had knowledge within them which they needed to deliver. But just as a pregnant woman cannot dispense with the invaluable services of a midwife, so also every man needed a midwife to help him bring out the knowledge. Socrates then compared his own function in life to the midwife's art, although, in a slightly different sense. As he puts it in the *Theaetetus*:

My art of midwifery is in general like theirs; the only difference is that my patients are men, not women, and my concern is not with the body but with the soul that is in travail at birth. And the highest point of my art is the power to prove by every test whether the offspring of a young man's thought is a false phantom or instinct with life and truth (Cornford, 2003, p.26).

So just as his mother helped women in bringing their bodily children to birth, so Socrates practiced the *Mieutike* (a Greek word meaning 'the art of delivery') on men, and the children which he assists into the world are offspring, not of the body, but of the mind.

Socrates saw himself as suitable for this role of intellectual midwifery because of the message from the oracle of Delphi that he was the wisest man in Greece. Socrates' friend Chaerephon had gone to Delphi and asked the oracle if anyone was wiser than Socrates and the oracle's reply was that no one was. Socrates' first reaction on hearing the news was to say that he was not wise at all, and to set out immediately to find someone who was

wiser than him, in order to refute the plain meaning of the oracle's message. This he did by conversing with all those who had a reputation for wisdom in Greece. In the end, he came to the conclusion that the oracle, was right and that he was really wiser than all those who had reputation for wisdom. Socrates however interpreted the oracle's message as meaning that his wisdom consisted of a recognition of his lack of knowledge and his humble admittance of his ignorance. Although ignorant, Socrates was eager to know and he declared that both he and his interlocutors were seeking knowledge together. Through this pretended ignorance and using the method of dialogue, he led other people to knowledge. This is what is referred to as the 'Socratic irony'.

# THE INTERFACE BETWEEN SOCRATES' PHILOSOPHY, CONTEMPORARY SCIENCE AND TECHNOLOGY

The name of Socrates formed a water-shed in the history of Greek philosophy because Socrates, by his teachings, turned men's eyes from the speculations about the nature of the physical world, which had been characteristic of the pre-Socratic period, to reflect on the problems of human life. It is Socrates' view that the investigation of the origin and ultimate nature of the universe is of far less importance than to understand what it meant to be a human being. Thus, Socrates not only brought philosophy down from the sky, he even "set it in the cities, introduced it into homes and compelled it to consider life and morals, good and evil" (Guthrie, 1963, p.419). This was a major revolution which re-directed men's thought from nature to human affairs.

There is the need however, to point out that Socrates was not a novice to the study of nature. As a young man, Socrates developed a passion for natural philosophy in the hope that it would explain the 'why of things'. This is not uncommon in a city where the cultivation of the mind used to play an important role at that time. Of course, Socrates could not have been ignorant of natural philosophy, having been exposed to the theories on the origin, the nature and the relations of things as postulated by Thales, Anaximenes, Heraclitus, Phythagoras and others (Onyewuenyi, 1993, chapter 6). The mere fact that Socrates could freely discuss on such subject matter with any of the bright young ones he found in the Palaestra is a confirmation of the fact that he had knowledge of natural science.

However, he later found the study of nature disparaging since such a study could not explain what it meant to be a human being and for what purpose one was in the world. Several reasons have been given why Socrates may have paid lesser attention to the study of nature. In one of Plato's dialogues called *Phaedo*, Socrates is quoted as saying: "I cannot yet in the words

of the Delphic precept 'know myself' and it seems to me ridiculous to be studying alien matters when still ignorant of this" (Guthrie, 1963, p.420). What Socrates is saying here is that it is wrong to neglect the study of human affairs which concerns us much more closely, so long as knowledge of them is so incomplete. Again, the secrets of the universe were believed to be unfathomable in those days and a religiously minded Greek would consider prying into such secrets as displeasing to the gods.

For reasons similar to those stated above, Socrates gave up the study of nature for the pursuit of ethics, but because of his early scientific studies, Socrates insisted that ethics itself was a field of exact knowledge calling for the application of rigorous scientific method. Here, ethics is conceived by Socrates not just as any science, but as the science of the good to which all other sciences must be subordinated if they are to be useful and to be of human interest. On this however, one is quick to detect a note of disappointment in Aristotle's observation that the first man to grasp the importance of the indispensable aids to scientific thinking was the same one who abandoned theoretical science for ethics. Granted that Socrates abandoned the study of nature for ethics, but the 'method' and 'principle' he bequeathed to the sciences have been of supreme importance to the entire scientific enterprise. This method and principle are those of 'induction' and 'general definition'.

By induction, we mean the progress from the particular to the universal. By this process of induction, the mind is led on from the observation of particular instances to grasp a general characteristic shared by all the members of a class. For instance, in another work by Plato called *Gorgias*, Socrates gets Polus to agree that bodies are called beautiful (*kala*) because they are either useful or pleasure-giving and then that the same is true of colours, sounds and learning. From this, the general conclusion is drawn that if anything is more beautiful than any other, it must be either more useful or more pleasant or both. Today, without the constant use of this device for drawing induction from limited experience, it would be impossible for scientists to carry on their everyday practice or pursue their researches.

To define something, on the other hand, is to express one's understanding not only of what it is, but equally of what it is not. For instance, to call man a two legged living creature is to name characteristics essential to the human race, but they do not constitute a definition because they do not mark man off from the race of birds. To Socrates, a definition must state not only what we might regard as the essential attributes, but also, and primarily, the work that the object in question has to perform. The sum of essential attributes forming the content of the definition is what Socrates calls the 'form' or *eidos* of the class.<sup>5</sup>

Certainly, Socrates may not have been the first person to use inductive argument or to give general definitions, but, he certainly may have been the first to recognise the importance of both and to systematically use inductive arguments to get general definitions. And today, all scientific research presupposes the use of induction in arriving at a general definition of its subject.

# SCIENCE, TECHNOLOGY AND HUMAN VALUES

In their simplest formulations, science is defined as a systematic method of describing and understanding the physical or material world, while technology refers to man's efforts to cope with his physical environment and his attempt to subdue or control that environment by means of his imagination and ingenuity in the use of available resources (Fadahunsi, 2003, p.35). This is the reason technology is sometimes defined as applied science. In the last few centuries, humanity has held an exalted view of science as the "authorised conviction" without which "one is not in possession of the best tool which humanity has so far devised for effectively directed reflection" (Kekes, 1972, p.306). As Ernst Cassirer (cited in Aigbodioh, 1997) succinctly puts it:

There is no second power in our modern world, which may be compared to that of scientific thought. It is held to be the summit and consummation of all our human activities, the last chapter in the history of mankind (p.168).

Science has therefore come to be regarded as the most effective means for fixing most of humanity's problems, be they personal, social or natural. For many, "if there are areas in which the scientific method is inapplicable, they transcend the scope of human knowledge" (Copleston, 1980, p.12).

There is no point denying the fact that science and technology have been beneficial to mankind, most especially in areas of improved food production and preservation, health care delivery, energy, security and information communication amongst others. For many reflective minds however, these various products, benefits and promises of science and technology have now become suspect, since they now constitute major threat to human life and a nuisance to the environment. For some, it is not only their destructive human purposes that have turned science and technology into threat and nuisance, but also the fact that even their well-intended uses have been found to have unintended consequences that have perplexed or even frustrated the very people who initiated them. The reason for this 'intended or accidental' negative fruits of science and technology is because of their neglect of a primus axiom that, "science" is first and foremost,

<sup>&</sup>lt;sup>5</sup> Eidos, was the name used by Socrates for the essential nature of anything he was seeking to define.

"a human activity" (Fadahunsi, 2003, p.35). But as Lauer (2007) rightly notes, for the three hundred years that spanned the 17<sup>th</sup> to the 19<sup>th</sup> century, and even to the present day,

Scientific [and technological] progress was confidently measured almost exclusively by the bridges and water pumps built, vessels sailed, aircraft flown, the steam engine, electricity, weaponry and telecommunications developed through scientific ingenuity (p.127).

This view, of the purpose and scope of science, presents science as purely representative of the material. Humans from this perspective of science and technology, are "no more than useable and manipulable objects [whose] values lie not in their persons but in their utility or efficiency" (Amodu, 2003, pp.28-29). In fact, the technological locutions for defining persons and for defining morality include such concepts as 'measurement', 'number', 'function', 'precision' and 'efficiency' among others, and the good is only defined in absolute abstract terms, with no respect for human vagaries, personal idiosyncrasies and social expediencies. It becomes understandable the reason the products of science and technology now constitute threat to both humans and the environment in which they live. All these wouldn't have been so, if there had been an acknowledgement of the fact that it is man, who through his spiritual and intellectual powers, created science and technology in the first instance (Mclean, 1964, p.11), and that the only way to properly put science and technology at the service of mankind is to give them a humane face. This is the view advocated by Socrates.

### SOCRATES AND MODERN SCIENCE

Now, it is over two thousand years since Socrates lived, but his utilitarian relevance still bestrides the scientific world like a colossus. It is true that Socrates then was skeptical as regards the relevance of natural philosophy which he saw as too far removed from the primary concerns of human beings. The fundamental commitment of any science, Socrates opined, is to be at the service of man, and he saw no use for a science which could not be used to solve specifically human problems. Such a science will be in one's possession like a tool in the hands of a man without experience, who manipulates the tool at random but instead of making progress at work, ends up injuring himself with the tool. This picture clearly depicts the situation we have on our hands today. Today, science and technology (its practical application) mark our time directly or indirectly and they dominate all the essential compartments of our life. In a hardly imaginable way, they have opened to man the possibility of control over nature. In the same way, science and technology have also conferred on man the power to destroy himself and the environment in which he lives; so that the destructive potential of science and technology today simultaneously raise doubts about their value. This trend by science and technology reminds one of Claude Levi-Strauss' platitudinous claim (cited in Ahoyo, 1997) that

the more knowledge makes progress, the more it understands why it cannot come to anything because whenever we have the feeling to make progress in knowledge, we see that it raises other problems (p.97).

However, as Karl Marx and Holderlin (cited in Ahoyo, 1997) rightly notes, "humanity never poses but problems that it can solve" [and] "where the danger is, grows also the saving power" (p.1 & p.141). This saving power can be found in the Socratic conception of the relationship between ethics and science. This fundamental relationship is better expressed in the words of Francois Rabelais (cited in Ahoyo, 1997) that "Science without conscience is but ruin of the soul" (p.8). No doubt, humanity is facing a tremendous challenge in view of recent explosions in the area of science and technology, and no doubt also that science and technology have equipped mankind with the tools for mastering our planet, but mankind must also decide wisely on all the components of that mastery and their relationship with human beings. With this step, the scientists (and indeed mankind) would have moved beyond the Baconian conception of 'knowledge as power' to the Socratic conception of 'knowledge' in the course of service to humanity.

Our return-to-Socrates approach is appropriate because the Athens of Socrates' days also witnessed similar upheavals as we have them now in our contemporary world, and the Socratic solution, through his moral philosophy, was a panacea for the Athenian problems. Similar problems have however resurfaced in contemporary times because all the Socratic claims for science to go hand-in-hand with ethics have been jettisoned by contemporary science. This neglect of Socratic injunctions by contemporary science is the source of contemporary evils accompanying the various scientific feats but a return-to-Socrates is, for us, one sure way of managing the present ills. This is because it has now become obvious that mankind cannot have a good life only with the material comfort provided by science and technology unaided by ethics, otherwise, how does one explain the fact that despite the increase in food production and material comfort resulting from scientific breakthrough, hunger, wretchedness and human misery still persist in our world? The explanation here is that very little or no attention has been paid by contemporary science to ethical issues, especially those pertaining to justice and human values. A return- to-Socrates will therefore ensure that contemporary science is guided by a genuine concern for the effects of its researches and practices on the human person.

### CONCLUSION

Socrates indeed formed a water-shed, not only in the development of Greek thought and civilization, but also of contemporary science and technology, and there is hardly any other issue worthy of discussion today for which recourse would not be made to Socrates. Science and technology today permeate the essential compartments of our lives, but the Socratic injunction for science to go hand-in-hand with ethics has been jettisoned by contemporary science. This, we have interpreted to be the source of contemporary ills accompanying the various scientific feats. Paying attention to the Socratic injunction is therefore one sure way of giving science and technology a humane face and thereby put both properly at the service of mankind.

### REFERENCES

- Ahoyo, F. N. (1997). The Ethical Challenge of Contemporary Science and Philosophy: The Socratic Example. (Unpublished master's thesis). Department of Philosophy, University of Ibadan, Nigeria.
- Aigbodioh, J. A. (1997). *Philosophy of Science: Issues and Problems*. Ibadan: Hope Publications.
- Amodu, A. A. (2003). Technology and Social Existence: A Philosophical Shaping of the Future. In A. Fadahunsi (Ed.), *Philosophy, Science and Technology* (pp. 24-33). Ibadan: Hope Publications.
- Copleston, F. C. (1980). *Philosophies and Cultures*. Oxford: Oxford University Press.
- Fadahunsi, A. (2003). Science and Technology as Promises and Threats to Society. In A. Fadahunsi (Ed.), *Philosophy, Science and Technology* (pp. 34-48). Ibadan: Hope Publications.

- Guthrie, W. K. C. (1963). *A History of Greek Philosophy* (Vol. III). Cambridge: Cambridge University Press.
- Kekes, J. (1972). Fallibilism and Rationality. *American Philosophical Quarterly*, *9*(4), 301-309.
- Lauer, H. (2007). The Modern Scientific Tradition and Its
   Contribution to Economic Regression in Africa. In T.
   Ebijuwa (Ed.), *Philosophy and Social Change in Africa* (pp. 121-143). Ibadan: Hope Publications.
- Mclean, G. F. (1964). The Contemporary Philosopher and His Technological Culture. *Philosophy and Technical Culture*. Washington DC: C.U.P.
- Omoregbe, J. I. (1990). *Knowing Philosophy*. Lagos: Joja Publishers.
- Onyewuenyi, I. C. (1993). The African Origin of Greek Philosophy: An Exercise in Afrocentrism. Nsukka: UNN Press
- Plato (1970a). Greater Hippias. In R.M. Hare & D.A. Russell (Eds.), *The Dialogues of Plato* (Vol. 1) (B. Jowett Trans.). London: Sphere Books.
- Plato (1970b). Phaedo. In R. M. Hare & D. A. Russell (Eds.), *The Dialogues of Plato* (Vol. 1) (B. Jowett Trans.). London: Sphere Books.
- Plato (1970c). The Apology. In R. M. Hare & D. A. Russell (Eds.), *The Dialogues of Plato* (Vol. 1) (B. Jowett Trans.). London: Sphere Books.
- Plato (1970d). The Symposium. In R.M. Hare & D.A. Russell (Eds.), *The Dialogues of Plato* (Vol. 1) (B. Jowett Trans.). London: Sphere Books.
- Plato (2003). Theaetetus. In F. M. Cornford (Trans.), *Platos' Theory of Knowledge, the Theaetetus and the Sophist.* New York: Dover Publications Inc.
- The Holy Bible. King James Version (1979). USA: The Church of Jesus Christ of Latter-day Saints.