

EMPIRICISM VERSES RATIONALISM: MATTERS ARISING IN MEDICAL PRACTICE

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Abstract

The two schools, Rationalism and Empiricism have been at loggerheads over what constitutes the ultimate source of knowledge. This is the focal point of epistemology, the branch of philosophy devoted to studying the nature, sources and limits of knowledge. However, in medical practice, these concern ways of thinking in diagnosis and therapeutics. The Empirical and the Rationalist philosophies are two logical and consistent thought structures which are in all respects entirely antagonistic to one another, one favoring the senses and the other favoring the mind. This paper is therefore concerned with the existence of a conflict in therapeutics between what are called the Empirical and the Rationalist philosophies.

INTRODUCTION

Rationalism and empiricism have been at loggerheads over what constitutes the ultimate source of knowledge. This is the focal point of epistemology, the branch of philosophy devoted to studying the nature, sources and limits of knowledge. According to Markie (2000) the defining questions of epistemology include the following.

1. What is the nature of propositional knowledge: knowledge that a particular proposition about the world is true? Knowing a particular proposition requires both that we believe it and that it be true, but it also

clearly requires something more, something that distinguishes knowledge from a lucky guess. Let's call this additional element 'warrant'.

2. How can we gain knowledge? We can form true beliefs just by making some lucky guesses. How we can gain warranted beliefs is unclear. Moreover, to know the world, we must think about it, and it is not clear how we gain the concepts we use in thought or what assurance, if any.
3. What are the limits of our knowledge? Some aspects of the world may be within the limits of our thought but beyond the limits of our knowledge; faced with competing descriptions of them, we cannot know which description is true. Some aspects of the world may even be beyond the limits of our thought, so that we cannot form intelligible descriptions of them, let alone know that a particular description is true.

Markie (2000) indicates that the disagreement between rationalists and empiricists primarily concerns the second question, regarding the sources of our concepts and knowledge. This paper is concerned with the existence of a conflict in therapeutics between the Empiricists and Rationalists philosophers from ancient times to date. Physicians were aware of this conflict up until the year 1800 or thereabouts, and medical histories written before that time discuss this conflict which dates back to Roman and Greek times. But after the mid-nineteenth century, when medicine was taken over by technology, this primordial conflict was forgotten. However, the opposition between these two ways of thinking about medicine continued, even though underground. The Empirical and the Rationalist philosophies are two logical and consistent thought structures which are in all respects entirely antagonistic to one another. The great medical thinkers have belonged to one or the other of these two traditions. Minor thinkers, who are by definition less rigorous in their theorizing, have usually, represented eclectic combinations of the two major traditions.

The greatest Empirical thinker in the field of medicine is Samuel Hahnemann, the founder of homeopathy. He established a system which, as we know, continues to this day. However, since Hahnemann there have been others who are perhaps better known, such as, Louis Pasteur, Emil von Behring, or Elie Metchnikoff, the founders of bacteriology (Coulter, 1994). These thinkers are also to be classified in the Empirical tradition. The Empirical and Rationalist approaches to therapeutics can be exemplified in various therapeutic modalities. The thinkers we have just mentioned are well known for their contributions to pharmacological medicine and to immunology. According to Coulter (159) some

of the major Rationalist thinkers of modern times were: the French physiologist, Claude Bernard, who died in 1878; Robert Koch, a founder of bacteriology, and Paul Ehrlich, the founder of modern pharmacology. The medicine we today call "scientific" and which the homeopaths call "allopathic" represents Rationalism in a relatively pure form, whereas such "alternative" medical disciplines as homeopathy, classical osteopathy, chiropractic, acupuncture in its classical form, and undoubtedly Orthomolecular medicine, represent an Empirical way of going about therapeutics.

BOUNDARY BETWEEN RATIONALISM AND EMPIRICISM

Our thesis is that there is an ongoing and fundamental tension between these two different ways of thinking. While these ways of thinking can be complementary, the tension persists, exploding around specific clinical and legal controversies. Understanding the tension between rationalism and empiricism provides important background in considering the role of expert advice.

Rationalism as a method of scientific thought dates back to the time of Aristotle and Galen. A hypothesis is first generated following certain observations, basic research, or an intuitive leap. Corroborative evidence is then sought to substantiate the hypothesis. Depending on how critical the individual may be, a varying amount of corroborative evidence is collected until the hypothesis is translated into a 'natural law' or dogma (in medical practice, the expression 'treatment of choice' indicates that the process is complete). There are many inherent dangers in this process, which are best illustrated by the following examples, quoted by Bryan Magee (17) in his delightful little paperback on the philosophy of Popper. Having observed that all swans swimming on the lake of your local park are white, you may generate the hypothesis that all swans are white; travelling round the country you- will corroborate this theory by all the other white swans that are seen. So convinced are you in your own mind of the rightness of these observations, that when you go to Australia and chance to see some swan-like birds that are black, the inevitable response is to suggest that these birds are not swans but some other species altogether.

The same spurious logic applies according to Baum (505) in political theory: Karl Marx's prophecies about a utopian culture have been adopted by the so-called peoples democracies as natural laws, and if the application of 'scientific' Marxism is associated with failure of the crops or a disastrous economy, it is never the fault of the political doctrine but always the fault of saboteurs or agents of the

CIA. Coming back a little closer to the subject under discussion, this is precisely the manner by which practitioners on the medical fringe rationalize their approach. Richard Peto is fond of quoting the example of the quack who advocated mountain climbing for the cure of cancer. A number of patients with 'incurable cancer' are assembled at the foot of the mountain and assured that those who climb to the top will live a long time. Some die before even attempting the ascent, and the quack, with a sigh of heartfelt grief, will say: 'If only they would have come earlier'. Another group of patients die half way up the mountain, but they of course did not complete the treatment so could not hope to benefit; whereas a small residual percent reach the top of the mountain and may live for a number of years, confirming yet again the benefits of the fresh alpine air and vigorous exercise. This is of course an extreme example, but the human tragedies associated with the use of anecdotal evidence to support the claims of the medical fringe are countless, and the current experience with Laetrile in the United States of America is merely the latest of a long line of 'cancer cures' whose only justification is wrapped up in the conceptual rationalism of the dark ages. Sad to say, even the practitioners of 20th century high technology mainstream medicine are often guilty, in a much more subtle way, when they abandon 'science' in favour of 'art' in the management of the individual patient. According to Baum experience that there are skilled physicians whose judgment and therapy produce better results than those less skilled, but I would suggest that the critical analysis of these skills will demonstrate that the former readily learns from his mistakes, whereas the latter fails to recognize his mistakes and therefore rationalizes away his failures. The art of good medicine is therefore a cleverly disguised science and there is no shame in accepting this doctrine (505). Furthermore, if we could analyze this gentle science, the good practitioners could pass on their skills which would otherwise die with them cloaked in mystique.

On the other hand, in the blossoming of the arts and literature the Renaissance saw a revolution in scientific philosophy. Francis Bacon was perhaps one of the most influential leaders of this revolution. In Volume I of his book entitled 'The Advancement of Learning' he wrote as follows: 'If a man will begin with certainties he shall end in doubts, but if he will be content to begin with doubts he shall end in certainties'. In the 20th century, Sir Karl Popper (1959) has been the most influential of this breed of scientific philosopher, taking the argument to its logical conclusion: 'Once put forward, none of our anticipations are dogmatically upheld, our method of research is not to defend them in order to prove how right we were, on the contrary, we try to overthrow them. Using all

the weapons of our logical mathematical and technical armory, we try to prove that our anticipations were false. Those among us who are unwilling to expose their ideas to refutation do not take part in the scientific game'. Thus the modern scientist starts off with a modest assumption that no individual, or for that matter no generation, is gifted with a complete insight into any of nature's enigmas. Progress in science is always an approximation to the truth; an hypothesis is allowed to stand as long as it is the best available to explain the observed facts. New data must never be rejected in favour of the hypothesis, but new hypotheses must continually be evolved to fit the available data.

In practical terms, the first stage of the generation of an hypothesis by the modern scientific empiricist is the same as the process that dates back to classical times. As a result of certain observations, combined with an intuitive leap, an hypothesis is created and this act of creation must be applauded as an expression of the artistic gifts of the human intellect. It is at the next stage that the pathways of the rationalist and empiricist radically diverge. Experiments are then designed to falsify the hypothesis, not to corroborate it. It is conceivable that the hypothesis does not lend itself to falsification, in which case the scientific thinker has wandered into the realms of non-science or faith. Almost inevitably the properly designed experiment will demonstrate defects in the hypothesis, in parallel with the acquisition of new data. But again it is possible for one hypothesis to explain all observations for so long that the temptation to translate it into a natural law or dogma will become irresistible. We were all taught the 'laws' of Newtonian physics at school, but even these irrefutable laws were falsified by the ultimate observation that light may bend in a gravitational field. It has taken Einsteinian physics to explain this phenomenon, whilst at the same time accounting for the excellent way that previously observed physical phenomena fitted the Newtonian theory.

EMPIRICISM VS. RATIONALISM: MATTERS ARISING

The Hippocratic tradition rests on many authors, not just the historical Hippocrates of course, but a plethora of later writers through antiquity, from Greece to Alexandria to Rome. This chapter focuses on two major sects of that tradition that dominated in Alexandria from the fourth century B.C. through Roman times. The dominant medical influence in the classical age was rationalism. Tracing its origin from Thessalos and Drakan, the sons of Hippocrates, rationalism is the oldest of the sects. Thessalos and Drakans emphasized the importance of natural philosophy in medicine, believing that

“where observation failed, reason might suffice” (Major, 150). The fundamental theory was the doctrine of “humours” as first taught by Pythagoras: The body of man has in itself blood, phlegm, yellow bile, and black bile: . . . [N]ow he enjoys the most perfect health when those elements are duly proportioned to one another in respect of compounding power and bulk and when they are perfectly mingled. Pain is felt when one of these elements is in defect or excess or is isolated in the body without being compounded with all the others (Major, 123). Thus, health was seen as the proper mixture of humours and disease was an imbalance. Most medical writing dealt with disputes about the nature of the humours, what the substances were, and how the balance of humours was altered by flow and constriction. From the perspective of the development of modern ideas about medicine, this interest is important primarily because it motivated the first focused research in human anatomy in Alexandria in the third and second century B.C. For the purposes of my argument, however, it should be stressed that the focus was on how disease develops or, in modern parlance, on mechanisms of disease.

This emphasis became a lens through which all of clinical medicine was seen. Medical advances were understood to come from deductions concerning physiology, and the clinical implications were derived directly from the understanding of the humours. Thus, diagnosis was the recognition of the current balance of the humours, and a disease resulting from an excess of a particular humour might be treated with a procedure or a substance that depleted that humour. There was a tendency to think of disease as having a single cause: a specific disbalance of the humours. Prognosis was relatively less important than other clinical questions (Pioreschi, 474). The empiricists were a splinter group that detached itself from the rationalists in the later part of the third century B.C. They rose in protest against the dried formalization of the rationalist school and in response to the anatomic discoveries. These discoveries, while brilliant, had contributed little to healing the sick. Furthermore, there was concern about the ethics of the dissection, and particularly the vivisection, practiced by the anatomists of that era. The empiricists rejected abstractions and general medical theories in favor of observation. They based their practice on the recollection of past observations and the knowledge of how similar symptoms had developed, what their outcomes were, and the determination of similarity between the case at hand and previous cases. As Celsus, a later Roman writer, argued, if theoretical reasoning would have been sufficient, philosophers would be the best physicians Often the cause of disease is known, for example, in

cases of injuries or wounds, but this does not help in the treatment. As the cause of disease is uncertain and incomprehensible, we should rely on . . . what experience has taught us. Authority was a target, “since neither the philosophers nor the physicians can agree among themselves, therefore one’s reliance should be placed on no man’s argument, on no man’s authority.” (Pioreschi, 547) To the empiricists, disease was not an entity but a group of systems, each of which required treatment. Experience was their lodestar: As Celsus later framed it, it is not how we digest, but what is digestible that matters (Major, 151). As a consequence, the main interest of empiricists lay in therapeutics more than in mechanisms of disease. Pharmacology and surgery were their preferred means to treat disease, and their writings are dominated by discussions of specific symptoms, remedies, similarities, and outcomes. The emphasis on therapy had an impact on how other kinds of clinical questions were addressed. The empiricists did not value looking for the “prime causes” of diseases. Diagnosis emphasized the recognition of discrete symptoms. In contrast to the rationalists, the empiricists believed that outcomes was the most important issue, with prognosis as a secondary focus.

Furthermore, the tension between rationalism and empiricism illuminates many current policy disagreements and private injuries. Most prominent are questions of clinical causation. From the rationalist perspective, the causation of disease begins at the cellular level with small changes that alter development and trigger disease. Historically, as we have seen, the perceived cause of disease was relatively simple (a disbalance of humours). Similarly, our modern understanding of, for example, the development of cancer may have very simple origins (external radiation, for example) followed by complex intermediary events. Moreover, in public discourse, it is not uncommon for patients, their physicians, and public officials to have strong and simple beliefs about specific agents and their impact. By contrast, an empiricist view is that causation is multifactorial and may be different in different settings (Rothman, 10-16). This difference in understanding of causality is at the root of many of the disagreements about causation in both policy and private injury.

The controversy around silicone breast implants provides an example of how this tension plays out in public discourse. For many years, there has been some concern that silicone exposure may cause autoimmune diseases, especially systemic sclerosis. Silicone is used in many different ways. The administration of drugs and parenteral fluids, as well as dialysis and cardiac bypass, depends on

liquid silicone. But the highest profile use is in silicone breast implants for women who require reconstruction after breast cancer surgery or for cosmetic reasons. The question of causation has become very controversial, fired by litigation as well as scientific dissent.

The judge overseeing discovery in all federal cases involving silicone-gelfilled breast implants appointed a neutral group of experts to review the evidence formally. This group, led by Dr. Barbara Hulka at the University of North Carolina, did a formal meta-analysis of studies of the relationship between breast implants and autoimmune disease (Janowsky and others, 781). They found no association between silicone breast implants and a variety of different autoimmune diseases, with summary odds ratio of .69 (95%CI: .62-.78) (Newton, 306). Indeed, because the analysis resulted in an odds ratio significantly less than one, the results suggest that silicone breast implants may protect against autoimmune diseases. Furthermore, using standard techniques for evaluating the impact of the exposure on the population, they concluded that breast implants have minimal effect on women developing connective tissue disorders (Newton, 306). Providing an overview of the controversy, Marcia Angell, the editor of the *New England Journal of Medicine*, asked the rhetorical question, "when will science prevail?" (Angell, 1695) The science she defended was that of the empiricists. Scientific reaction has been sharp. The first letter published in response to the study, written by Eugene Goldberg, took up the issue of what kind of science was being used:

As an educator and academic biomedical scientist, I found the lengthy special article. . . to be inconsistent with the scientific standards we have come to expect from the journals [I]ts credibility is lost because of total disregard of a substantial body of scientifically sound data on the extraordinary rate of implant failure (now estimated to involve rupture and gross leakage of silicone in 50 percent of cases after approximately eight years), the substantial degradation of the silicone shell and gel with time, the pain and disfigurement that result from contraction of the fibrous capsule, the chronic inflammation due to immune-system responses involving phagocytosis of fine silicone droplets by macrophages and giant cells and the spread of silicone throughout the body (Goldberg, p.1154)

At issue is what kind of science is used to address causation. What Angell defines as science is modern epidemiology, a careful examination of a variety of studies of the association between exposure and disease in different settings. Some of the published commentary quarrels with the epidemiological methods used by Hulka and her colleagues; such commentary shares a focus on patient outcomes with Hulka and is a very familiar part of the empiricist tradition. By contrast, what Goldberg construes as science are the modern biomedical sciences. Each argument he gives is a possible mechanism of disease.

RATIONALIST TRIUMPH

What we understand as modern medicine has at its roots a triumph of rationalism: the emphasis on the search for basic mechanisms of disease and the development of therapeutic tools derived from them. At the turn of the last century, what we think of as modern medicine was understood as allopathic medicine. It was one of a variety of "sects," which included homeopathy, osteopathy, and herbalism. Despite the clinical breakthroughs in anesthesia, antisepsis/asepsis, bacteriology, and pathology, allopathic medicine was by no means the most significant of the sects. Indeed, the homeopathic tradition was in the ascendancy, having many medical schools and taking care of the elite.

A key event in the development of medicine in the United States was the publication of the Flexner report. Abraham Flexner was a representative of the Carnegie Foundation, whose major interest was in promoting the development of the modern university. As part of that effort, Flexner was commissioned to study the structure and function of medical education. Over four years, he visited all 152 medical colleges in the United States and summarized his findings in what has come to be known as the Flexner report. That report, with the public and private outrage that accompanied it, transformed American medicine. Within thirty years, over half of the medical schools in the United States closed, and those that remained, while heterogenous, were much closer to the Flexnerian model: substantial emphasis on basic science, integrated into the university structure, and having a close affiliation with a teaching hospital.

Flexner understood himself to be writing about the structure of modern medical schools. For our purposes, however, Flexner's report is valuable because it provides a window on the thinking about rationalism and empiricism at the time of the founding of modern medicine. Flexner was contemptuous of the practitioners of his day, whom he saw almost as mere empiricists, giving out

medications by rote in response to symptoms. Describing the education system he wanted to destroy, Flexner observed:

The student's part was, parrot like, to absorb. His medical education consisted largely in getting by heart a prearranged system of correspondences, – an array of symptoms so set off against a parallel array of doses that, if he noticed the one, he had only to write down the other: a coated tongue – a course of calomel; a shivery back – a round quinine. (21)

Surveying the achievements of Robert Koch, Robert Lister, and particularly the new Johns Hopkins Medical School, Flexner's vision was that the modern physician should be a scientist, trained in the habits and discipline of the basic sciences of anatomy, physiology, pathology, and microbiology. He compared the clinician to the researcher explicitly:

The main intellectual tool of the investigator is the working hypothesis, or theory, as it is more commonly called. The scientist is confronted by a definite situation; he observes it for the purpose of taking in all the facts. These suggest to him a line of action. He constructs a hypothesis, as we say. Upon this he acts, and the practical outcome of this procedure refutes, confirms, or modifies his theory. Between theory and fact, his mind flies like a shuttle; and theory is helpful and important just to the degree in which it enables him to understand and relate, and control phenomena. This is essentially the technique of research: wherein it is irrelevant to bedside practice? The physician, too, is confronted by a definite situation. He must needs seize its details, and only by powers of observation trained in actual experimentation will enable him to do so. The patient's history, conditions and symptoms form his data. The progress of science and the scientific practice of medicine employ, therefore, exactly the same technique (Flexner, 55).

At the heart of the modern medical school is the investigation of the basic mechanisms of disease. Flexner argued that having faculty doing research is absolutely critical to the new medical school because the researcher's constant attention to the fundamental mechanisms of disease provides the right milieu for physicians in training. While practicing physicians must, as a matter of practicality, spend their time taking care of patients and cannot focus on research, their temper and temperament have been formed by teachers who are honed at the edge of basic science. Flexner created a temple of medicine, in

which the high priests are scientists who illuminate the basic processes of disease. While it is important not to oversimplify Flexner's views—the way of thinking he embraced emphasized the importance of fitting facts to theories—his was a triumph of rationalism over empiricism.

Flexner's vision has been profoundly amplified by the changes in science as mechanisms of disease have moved farther from the bedside, and in the financing of medical schools as external support for research has skyrocketed since World War II. The orthodoxy of modern medicine is rationalist; a large majority of physicians within academic medical centers and in practice are subspecialists who are experts in a particular set of diseases and focus on particular organ systems or diseases. Mechanisms of disease dominate medical school curriculum, as well as much of clinical training.

EMPIRICIST RESPONSE

The rise of clinical epidemiology in the latter half of the twentieth century represented the empiricists' response to the rationalists. The traditional roots of epidemiology were the Hippocratic emphasis on the distribution of disease in space and time and the empiricist tradition. In 1946, John Paul argued for the application of epidemiology to clinical problems (Paul, 539-41). This approach was elaborated by David Sackett at McMaster, Alvan Feinstein at Yale, and others in the 1960s and 1970s in a series of books and articles. Arguing that clinical epidemiology is "the basic science of clinical medicine," (Newton, 304). Sackett and others took the general approaches of epidemiology—defining a population and assessing exposures—and addressed them to the fundamental clinical questions of causation, therapy, diagnosis, and prognosis. The focus on clinical questions underscored the importance of studies with humans and emphasized patient-centered outcomes. Moreover, use of epidemiologic methods allowed standardized assessment ("critical appraisal") of the strength of study designs. The movement has had different names in different decades and with different audiences: Critical Appraisal of the Literature, Outcomes Research, Practice Guidelines, and Evidence-Based Medicine.

In the 1990s, the term "Evidence-Based Medicine" ("EBM") began to be used to label this general area of work. Sackett defines EBM as "the conscientious, explicit and judicious use of best current evidence in making decisions about the care of individual patients." (Newton, 304). What constitutes evidence is in the mind of the beholder, but the territory Sackett claimed included studies on

humans that include patient-centered outcomes. While EBM has had many different expressions, a common approach has been to summarize the available literature around specific questions of clinical management. It is common for techniques of meta-analysis, the statistical combination of similar trials, to achieve a more precise estimate of effect.

A good example of EBM is the approach taken by David C. Slawson and Allen F. Shaughnessey to review the available clinical literature for practicing clinicians. (Newton, 304). Writing about the challenges faced by practicing physicians as they try to keep up to date, they distinguish between POEMs and DOEs. POEM stands for "Patient Oriented Evidence that Matters," meaning methodologically strong studies that apply to patients with symptoms similar to the physician's patients and change practice. DOE stands for "Disease Oriented Evidence," or evidence that relates to the pathophysiology of disease, or uses biochemical markers as outcomes. Practicing physicians should search for POEMs and use DOEs only when there is nothing better. The critique of traditional biomedical medical research is radical: The vast majority of published medical work falls into the category of DOEs. This approach has been incorporated into a series of magazines and new products for practicing clinicians, and its significance has been likened to Dolly the sheep by the editors of the British Medical Journal (Winston, 913).

The reaction provoked by EBM has been sharp, as one would anticipate from its impiety and antagonism to clinical experts. The tenor of the discussion can be seen in this comment by a British clinician:

The rise of Evidence Based Medicine has been one of the more remarkable phenomena of the British health scene during the 1990's The "fall" of EBM is rather different; since it involves a quasi-theological "fall from grace": a loss of clinical, scientific and educational integrity, even to the point of decline into a "state of sin" (if seeking and clinging to power at any cost is seen as sinful). The moral decline would—in the normal course of events—be followed in due course by loss of status, income and power. However, the EBM barnacle may prove difficult to dislodge now [sic] it has a grip on the minds of politicians and managers. (Charlton & Miles, pp.371-374)

For the purposes of this argument, the emphasis on EBM represents a renaissance of empiricist thinking cast into modern language. The key questions

of epidemiology—accounting for bias and chance—represent a modern treatment, with modern analytic tools, of the empiricists' central question: How does one learn from experience? How does one separate out the role of bias and chance? What is going on in medicine now is a war of cultures between those for whom the mechanisms of disease constitute the best kind of evidence and those who think that appropriately analyzed outcomes are critical.

CONCLUSION

The Rationalist way of thinking is very congruent with the overall structure of thought in the late twentieth century. We think in engineering terms, in causes and effects. Hence these physicians equate "science" with knowledge of mechanisms of action. If an Orthomolecular nutritionist announces: we have observed this vitamin's effect and want to use it even though we do not understand its mechanism, they do not recognize this as "scientific." Empiricism has always considered carefully controlled observation to be reliable knowledge. It rejects as a matter of principle any excessively elaborate knowledge of the internal workings of the organism. Because, while one can know such mechanisms in general one can never know whether such knowledge is true for a single concrete individual.

However, empiricism and rationalism have limitations. The limitations of empiricism were demonstrated early on in the philosophy of Descartes. In *Meditations on First Philosophy* he implies that while sense perception is adequate for "things near to us" (for example things in an empirical sphere), the senses are unable to inform reality in "things very far away" (for example things in an ethical sphere) (Descartes, 18). Scripture confirms this limitation of human reasoning by showing that while man is an empirically reasoning being and held responsible for what that reasoning deduces, (Rom. 1:20) his reasoning ability is limited in its capacity to know God fully on its own. Thus a dilemma is present. According to Duffer (6) human beings are built to function in an empirical sphere but are unable on their own to gain total insight into the ethical sphere. This is the source of frustration for empirical young physicians confronted with ethical questions. The result is apathy toward ethical discussion so common in today's student-physician.

What knowledge source should inform decision making in an ethical sphere? Descartes' rationalism confirms that sense perception alone has no foundational role in answering this question. These answers must come from beyond our

sensory understanding of the situation. This source for Descartes was "first principles" or "objects of intuition." (Schouls, 33). Hume went even further in showing that not only was empirical reasoning inadequate for answering questions of an ethical sort but so was Descartes' rationalism. Others have offered alternative explanations for this knowledge source. These alternatives fall short because they are fundamentally bound by the use of human deductive reasoning in a non-deductive sphere. When an empiricist or rationalist confronts an ethical situation, pragmatism, agnosticism, or subjective value systems are the only logical solutions.

However, a revelational knowledge source claims to provide insight from beyond the empirical sphere into the ethical sphere. This is the fundamental task of revelation. (Gal.1: 11-12) This is not to imply that revelational truths are irrational, only that their source is not limited by empirical sense or rationally derived. John Baillie describes revelation as a revealing from divine subject to human subject truths that were previously a mystery (i.e., beyond our ability to deduce them). Further, he states, "the mystery described is nothing less than God's own will and purpose."(Baillie, 28) In fact, the application of revealed principles in ethical situations, their call on us to decision and response, their reliance on faith rather than deductive reasoning for their reception and the hope this faith creates in a Revealer form the core of our relationship with God (Rom. 8: 24-25). This is what fulfills the search for a soul. God in His infinite wisdom has gifted humankind with the ability to empirically reason and rationally deduce. But in His infinite wisdom He has also seen fit to limit the capacity of this reasoning ability so that a faith relationship can be fostered with Him through encounter with His revelation. It is through this relationship that revelation regarding Himself and the beyond can occur. It is through this relationship that our lives can attempt to imitate His revelation alone that provides answers for the relational question of life, death, family, and the hereafter. Thus "Revelational ethics" are necessary to inform the answers to questions such as "Why should Mrs. Stella Obasanjo be allowed to die?"

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