

II THE SUBJECTIVE ELEMENT IN KNOWING

INTRODUCTION

From Descartes to Kuhn

In the modern period the belief took hold that we can find objective, universally valid, and therefore absolutely certain knowledge if, and only if, we followed the so-called scientific method. Whatever could not be observed, weighed, measured, and/or expressed in a mathematical formula was not knowledge but mere personal opinion. Religion belonged to that category. The name most closely connected with this theory of knowledge is that of René Descartes (d. 1650), who lived in a period of rising skepticism and made it his life's task to find a method that countered skepticism (as well as religious divisiveness) by guaranteeing cognitive certainty in all fields, including religion. Although Descartes had no such intentions, his theory of scientific objectivism has become a major weapon against religious faith.

Its power is not as great, however, as it has been. In our postmodern times the modern theory is under attack. In fact, it was challenged already before the rise of postmodernism – by Reformed Dutch thinkers such as Abraham Kuyper, Herman Bavinck, Herman Dooyeweerd and Dirk Vollenhoven. But while the influence of these men was largely restricted to their own Christian communities, in the course of the twentieth century the critique has been joined by thinkers from elsewhere, non-Christians as well as Christians. Led by philosophers of science Michael Polanyi (1891-1976) and Thomas Kuhn (1922-1996), these thinkers demonstrate the subjective element in all knowing, including scientific knowing.

Whereas Descartes insisted that seekers for truth must place the personal element on hold, thinkers of the new school make clear that such objectivity is not possible; that scientists, like all human beings, look at reality through the lenses of their belief systems or paradigms. These thinkers further acknowledge that human beings are not omniscient and that scientists make mistakes. They also refer to the essential role that tradition, community, and authority play in the search for knowledge (as against Descartes' insistence that the individual scientist must start "from scratch"). Furthermore, some of them draw attention to other than scientific ways of finding truth and stress, for example, the role of belief in acquiring knowledge. As the above suggests, and as various authors have pointed out, there is among postmodern thinkers a renewed appreciation for aspects of pre-modern, pre-Cartesian views of knowledge.

The danger of subjective relativism

It is important that students at our schools become acquainted with this critique of the modern theory. The modern belief in scientific objectivism and infallibility has been a stumbling block for Christians long enough. Students should learn, as C.S. Lewis once put it, to respect scientific theories but never to idolize them. These theories are not avenues to absolute truth.

A warning is in place, however. Teaching the subjective element in knowing and the consequent fallibility of science could lead to the postmodernist conclusion that there is no truth and no objective reality, that all things are relative. This conclusion must be rejected: The fact that our knowing is influenced by subjective elements does not mean that objective reality

is non-existent, or that our knowledge of it is by definition unreliable. Instruction in the postmodern view of knowing should therefore be accompanied by the constant reminder that there is an objective reality and that reliable knowledge can be found and is being found, in science as in other fields. What is to be rejected is the modernist assumption that, given the proper method, human beings can look at reality with the eyes of God.

The question remains how we are to deal with the relationship between objectivity and subjectivity. The answer is that we must keep in mind the difference between human knowledge of reality, and reality as it exists in itself and as it is known to God. I could also say that we must keep in mind the difference between the object of epistemology (theory of knowledge) and that of metaphysics or ontology (the philosophy that concerns itself with being). This type of difference has been discussed in some detail by two authors introduced in the first part of this bibliography, namely Arthur F. Holmes, *Contours of a Worldview*, and David K. Naugle, *Worldview: The History of a Concept*. Here follow summaries of their discussion.

Subjective knowledge of an objective reality

Holmes (p. 46) distinguishes between *epistemological* and *metaphysical* subjectivity and objectivity. *Epistemological subjectivity*, he writes, refers to the involvement of a person – his attitudes, values, desires, and beliefs – in his thinking and knowing. *Epistemological objectivity* would preclude that personal involvement. Such epistemological objectivity is impossible, however; the subjective element in thinking and knowing is unavoidable.

Metaphysical subjectivity, on the other hand, means that an object has no independent existence outside the thinker's mind, whereas *metaphysical objectivity* refers to the fact that things do have an independent existence and that truth exists, quite apart from what we may think, see, wish, or say.

If we keep these differences in mind, we will agree that “epistemological subjectivity is quite compatible with metaphysical objectivity.” In other words, the personal and cultural influences on our thinking do not imply the non-existence of an objective reality, nor do they imply that what we think is by definition untrue. There is a real world and an independently existing reference point, even though we, human beings, see the world from our particular vantage point.

Critical realism

Naugle (pp. 321-26) deals with the topic from the perspective of *naïve or common sense realism*, *antirealism*, and *critical realism*.

According to *naïve realism* our understanding of the cosmos is direct and accurate; there is no subjective element in our knowing, and hence there is no danger of an attitude of relativism. What we think we see is fixed, unchanging reality, the world as it is in itself. Opposed to this is *antirealism*, according to which an absolute disconnection exists between what is “out there” and our various human perceptions of it. Antirealists hold that an external world may exist but that its objective character remains forever unknown to us, and that therefore so-called truth about the world is not discovered and certain, but invented, socially constructed, and relative. *Critical realism* occupies a middle position between these two extremes. It affirms

both the existence of an objective reality (and the possibility of reliable knowledge of it), and the subjective element in our knowing of that reality. In the words of another author (N.T. Wright): “Knowledge, . . . although in principle concerning realities independent of the knower, is never itself independent of the knower.”

Naugle calls critical realism a golden mean epistemology. It is, he writes, “a blend of objectivism and subjectivism, acknowledging both a real world and yet real human beings in all their particularities attempting to know it. It places neither too much nor too little confidence in human reason, but recognizes what human cognitive powers can and cannot do. This position avoids the arrogance of modernity [naïve realism] and the despair of postmodernity [antirealism], but instead enjoys a rather modest, chastened view of knowledge marked by epistemic humility. . . . The consequence of critical realism is neither dogmatism nor skepticism, and its mood is neither excessively optimistic nor cynical.”

The question as to whether there is, under critical realism, “a basis for affirming the possibility of a true experience,” Naugle answer in the affirmative. The real world can be known because God made knowledge of it possible, even though our knowledge is tempered by the epistemic limitations of human finitude and sinfulness. But because God exists, we are not misled. It is true that we see reality only dimly, as through a mirror; yet we do see it.

Critical realism then affirms two important new insights about the scientific endeavour. Firstly, it explains why, contrary to the modernist creed, science does not guarantee absolutely certain knowledge. Scientists are fallible, mistakes are made, corrections are frequently necessary. But secondly, critical realism shows that, contrary to the postmodernist opinion, the search for scientific truth and knowledge can and does lead to increased verisimilitude. In this sense science is exceptional among disciplines. There is scientific progress, so that much of past science is out of date, whereas new conceptions in art, literature, philosophy, or religion do not disqualify older ones in these disciplines. This is so because there are techniques of prediction, proof, and verification in science for which there are no equivalents in other disciplines (Chaim Perelman).

BIBLIOGRAPHY

Buber, Martin. *I and Thou* (German original *Ich und Du*, 1923; first English translation 1937). T.&T. Clark/Scribner, 1958, 137 pp. Martin Buber (1878-1965) was a Jewish existentialist philosopher who offered a philosophy of personal relationships and dialogue as a means to come to know others. Distinguishing between theoretical (scientific) and interpersonal knowing, Buber rejected the modern belief that only the former ensures reliable knowledge. In this connection he spoke of an I-It and an I-Thou relationship. The first applies when we treat someone or something as an *it*, an object that we can control and manipulate. In the second case we approach him/her/it as a *thou*, someone who addresses us and to whom we respond. Such interpersonal knowing is different from scientific knowing, but it is not less reliable. It is the only way to get to know the other, i.e., our human neighbor. It is also the only way to know God.
[FGO]

Dooyeweerd, Herman. *A New Critique of Philosophical Thought*, 4 vols. Presbyterian and Reformed, 1953-58. (Original Dutch version: *De Wijsbegeerte der Wetsidee*, 1935.) To describe Dooyeweerd's philosophy in a brief paragraph is not possible. His work is complex. It is also controversial; Reformed thinkers, both in the Netherlands and in North America, have criticized various of its aspects. The great majority of these critics agree, however, that Dooyeweerd's theory of knowledge gives us much that can truly benefit Christian learning. Among Dooyeweerd's concepts are his analysis of "modal aspects" and his idea of "religious ground motives" (a concept that can be compared to worldview). These groundmotives, he points out, affect scientific work, so that it is never fully objective. Although Dooyeweerd's philosophy is not easy, a study of it will benefit all who are interested in the role of theories of knowledge. Related works by Dooyeweerd that are both shorter and easier to follow are *Roots of Western Culture* (Wedge, 1979), and *In the Twilight of Western Thought* (Presbyterian and Reformed, 1968). For a critique of Dooyeweerd's philosophy, see, *inter alia*, J. Douma, *Another Look at Dooyeweerd*, Premier, n.d. (original Dutch version *Kritische Aantakeningen bij de Wijsbegeerte der Wetsidee*, 1976). [FGO]

Kuhn, Thomas. *The Structure of Scientific Revolutions*, 2nd enlarged edition. University of Chicago Press, 1970, 210 pp. Thomas Kuhn is the philosopher of science whose name is most closely connected with the 20th-century challenge to the belief in full scientific objectivity. He was not the first to question that belief, but his work is the most influential. He introduces the concept of the scientific paradigm – the system of theories and methodologies which, he claims, guide scientists in their scientific endeavour. Working within a certain paradigm (e.g., Newtonianism, Darwinism, quantum physics, and so on), the scientist's task is not to prove a theory true or false, but to gather further evidence on its behalf and to solve remaining problems. It is only when too many anomalies arise that trust in and loyalty to the paradigm decline and a new one may arise. In the birth and acceptance of a new paradigm, Kuhn claims, scientists are not motivated by evidence of its superior truth, but by subjective considerations, such as the idea of beauty, or the desire for simplicity. Both the scientist's own personality and the prevailing worldview play a role in the rise and acceptance of a new paradigm. [FGO]

Lewis C.S. *The Discarded Image: An Introduction to Medieval and Renaissance Literature*. Cambridge University Press, 1964, 232 pp. In this book, published a year after his death, Lewis writes about cosmic "images" (or models, or paradigms) and their interaction with the thought and culture of the period they serve. His concern is with the Ptolemaic model – that of a static, central earth and a revolving sun – which ruled from the classical Greek period until the end of the Middle Ages. In the concluding section, the "Epilogue," he comments on the temporary nature of all cosmic models and argues that it is not necessarily a battery of new facts that destroys one model and introduces a new one. A model is more likely to change "when, and because, far-reaching changes in the mental temper of our descendants demand that it should." Of course there will be true supporting evidence, but that evidence will turn up when the inner need for it is sufficiently strong. In short, there is an important subjective element in the establishment of cosmic models, as in all scientific theories. [FGO]

Lovejoy, Arthur O. *The Great Chain of Being: A Study of the History of an Idea*. Harper Torch, 1965, 376 pp. Arthur O. Lovejoy (1873-1962), an American historian, is the founder of the "history of ideas" as an academic subject, and was himself one of its most eminent practitioners. First issued in 1936, *The Great Chain of Being* continues to be relevant for historians of philosophy, theology, literature, and science. Particularly important from the point of view of the philosophy of science is Lovejoy's description of how prevailing systems of philosophical thought affect the rise and demise of scientific paradigms. His examples are, firstly, the switch from the earth-centred Ptolemaic System to the sun-centred Copernican-Newtonian one, which took place in the course of the 16th and 17th centuries; and secondly, the rise of evolutionism two centuries later. With respect to the change in cosmology, he shows how in the later Middle Ages and the Renaissance, well before Copernicus published his theory (in 1543), a rotating earth, a central, stationary sun, a plurality of solar systems, infinite space and an infinite number of stars were already common topics of discussion among non-scientists. Scientists followed suit. In a similar way, 18th-century philosophers and other non-scientists prepared the way for the acceptance of 19th-century theories of evolution by proposing novel concepts such as the idea of progress, the belief that the Golden Age lies in the future and not in the past, and the conviction that all things move from simple to complex, rather than the other way around. [FGO]

Oosterhoff, Frederika. *Ideas Have a History: Perspectives on the Western Search for Truth*. University Press of America, 2001, 357 pp. This book traces the roots of western ideas from the Greeks up to and including the postmodern era. A primary goal is to explain the rise of the modern theory of knowledge and to evaluate it. The author refers in this connection to the work of Abraham Kuyper, Thomas Kuhn, Michael Polanyi, and others. The book's conclusion: "Belief in the so-called objective ideal . . . is a false belief, and can be shown to be so. Extra-scientific factors, including the scientist's own insights, presuppositions, and idiosyncrasies, as well as the expectations and beliefs of his culture, intrude at practically every stage of the work" (p. xiv). Special attention is given to the theories of knowledge proposed by Abraham Kuyper (ch. XX) and Michael Polanyi (chs. XXI-XXIII). [FGO]

Polanyi, Michael. *Personal Knowledge: Toward a Post-Critical Philosophy*. University of Chicago Press, rev. ed., 1962, 428 pp. Michael Polanyi (1891-1976), an Anglo-Hungarian scholar, was an internationally-known physical scientist who later turned to the philosophy of science and became one of the leading 20th-century thinkers to critique the modern theory of knowledge. That theory, he argues, has been responsible for poisoning our entire intellectual and moral atmosphere and has led to such bloody utopian schemes as the French revolution and communism – a major reason being the implied belief in automatism: the conviction that if one only applies the approved method, the desired result must follow. This did not happen, and the consequence was recourse to force and coercion. In the book under discussion, Polanyi proposes an alternative theory of knowledge, one that acknowledges the subjective element in all knowing and the necessity of personal commitment, and that admits the fallibility of scientific conclusions. This is not to say that Polanyi proposes a relativistic view of scientific

knowing. There is an independent reference point, and truth can be found and is being found. There are also, in science as in other academic disciplines, ways and means of evaluation. What Polanyi is looking for is a theory of knowledge that retains the positive aspects of the modern theory (the belief that truth can be found) but avoids its pitfalls (the idolatry of method and the conviction that man can have a God's eye view of reality). [FGO]

Wolterstorff, Nicholas, *Reason Within the Bound of Religion*, 1976. Eerdmans, 1976, 115 pp. With Alvin Plantinga, William Alston and others, Nicholas Wolterstorff belongs to the circle of North-American Reformed philosophers who stress the rationality of theistic belief. In this booklet, Wolterstorff introduces the concept of control beliefs, a term that refers to the scholar's conclusion as to whether a theory is compatible with his philosophical, religious, and other convictions and values. He points out that all scholars, unbelievers as well as believers, hold and apply such control beliefs, and that the Christian should therefore not be hesitant to admit his own. While arguing that the believer's integrity requires him to use his religious commitment as controls in evaluating theories, he also admits that new evidence may cause that same believer to revise specific beliefs. The acceptance of the Copernican system serves him as an example. Such revision should occur only, however, in the case of new data or insights (scientific and biblical), not in the case of conflicting control beliefs. Wolterstorff's acceptance of the subjective element in human knowing does not mean that for him all things are relative and that "everything goes." Truth can be found, even though, in distinction from the modern period, theorizing must now be admitted to be "without a foundation of indubitables." [FGO]