

# Reconstructing Modern Science, Rediscovering Religious Science

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**ABSTRACT:** The paradigm shift that affected the epistemological and philosophical bedrock of the intellectual landscape of the 19<sup>th</sup> and 20<sup>th</sup> centuries transformed the meaning of science. The changes that brought about this transformation in meaning differed in their impact: Some, while leaving the meaning of science intact, curtailed its epistemic scope; others, however, undermined the traditional sense of science and inaugurated a fundamentally different sense – a modern sense – in its stead. Examining the historical course of this transformation, the aim of the present article is to shed light on the true meaning of science in the sacred and religious context, to offer some suggestions concerning how religious science may be redeemed, and to address some of the problems that may hinder the success of this redemption.

**KEYWORDS:** sacred science, positivism, sanctity, paradigm shift, postmodernism, epistemology, verifiability, falsifiability, religious science, secular.

## ***Introduction***

### **1. The Definition of Religious and Sacred Science**

Although the defining feature of modern science is its independence from religion and spirituality, these two fields of human interest have often served as subjects of scientific investigation. The studies conducted by anthropologists, sociologists, and psychologists concerning religion and sacred phenomena reflect to some extent the interest of modern science in the realm of the sacred. That modern science is interested in questions relating to religious and sacred phenomena, however, does not render it religious and sacred. As such, what makes science religious and sacred is not its examination of religious and sacred questions. For science to be characterized as religious and sacred, it ought to be religious and sacred in its essence or its theoretical and epistemological structure.

### **2. The Plausibility of Religious and Sacred Science**

The positivistic conception of science posed the greatest obstacle to the formation of religious and sacred science. This conception, however, has run its historical course, encountering numerous problems. Beleaguered by these problems, the positivistic conception was supplanted by a new conception that developed in the context of the philosophy of science. This new conception, which originated in the 1960s and thrived in the matrix of postmodern thought, offers a fresh opportunity for formulating religious and sacred science.

The present article will follow the trajectory that the meaning of science traversed in the milieu of modern and postmodern thought during the nineteenth and twentieth century's. Studying the changes that the positivistic conception of science underwent in this period, the present article will elaborate on the new opportunities for formulating religious and sacred science.

### **3. The View Defended in the Present Article**

It is the view of this author that postmodern definitions of science – like their modern predecessors – preclude the possibility of religious and sacred science. In order for sacred science to obtain certain prerequisites are necessary, and these prerequisites are at odds not only with the implications of the modern definitions of science but also with those of the postmodern definitions. To arrive at sacred science, we must disavow the postmodern definitions of science along with the implicit presuppositions that underlie them. We must seek a conception of science that is comprehensible on a higher plane transcending modern and postmodern thought. This transcendent conception is that with which Islamic culture and civilization was formerly acquainted but which is now foreign to the academic institutions of the Muslim countries.

#### ***Sanctity, Religion and Science***

The relation of sanctity, spirituality, and religion, on the one hand, to science, on the other, may be expressed in a purely descriptive fashion, which would require that we first strive to grasp the true definition of sanctity, spirituality, religion, and science and thereafter assess how they interrelate. But as science has taken on different meanings in different times and has thus lacked a uniform application, our examination finds a historical aspect as well. That is, we shall look at the variations in meaning that science has donned in different times and cultures and shall assess its relation to sanctity, spirituality, and religion in view of these various meanings.

#### ***The Positivistic Sense of Science in the Nineteenth Century***

Our historical examination begins not in the distant past but in a period when science was understood in the same meaning in which it is employed even today. Science, in this modern sense, signifies knowledge that is amenable to empirical investigation and as such is distinguished from other sources of human thought and belief that are impervious to this method of assessment. As these other sources of human thought and belief were deemed “unscientific,” such other terms as ideology, myth, religion, and philosophy were employed in reference to them. But there was

still another field of human belief that demanded a legitimate appellation, and that was the discipline that studied culture itself, for culture subsumes “science” as well as the “unscientific” sources of human thought and belief.

This was the sense with which science became associated as of the second half of the nineteenth century.<sup>1</sup> Prior to this period, science included non-empirical and rational disciplines as well. The preeminence of empiricism and sensationalism and the triumph of materialism and worldliness were the factors responsible for the limitation in meaning that science experienced in the nineteenth century.

### ***A Mere Change in Meaning or a Paradigm Shift***

Modern enlightenment, which flourished in the seventeenth and eighteenth-century Europe, was intertwined with rationalism – albeit a peculiar type – and for this reason the broader sense of science that included non-empirical disciplines as well was retained during this period. Descartes, Spinoza, and Leibniz typified the intellectual milieu of this period: they were rational philosophers who regarded their philosophic investigations as legitimately scientific.

The nineteenth century experienced not a mere change in the meaning of science but rather a shift in the foundations of science. Prior to this period, science was regarded as representing the human capacity of discovering and knowing the exterior world that lay beyond the human mind, and as such its signification encompassed all intellectual endeavors aimed at shedding light on the objective world, not merely those that were empirical. But as empirical epistemology came into prominence in the nineteenth century, sense perception was hailed as the only means by which the human being could access and gain knowledge of the objective world. Consequently, legitimate knowledge of the world was that which was obtained through sense perception, verifiable or falsifiable by means of sense perception, or at least justifiable by appeal to sense perception.<sup>2</sup> Thus, the nineteenth century was the period in which sensationalism came to dominate the intellectual landscape of Europe, and this naturally led to a change in the meaning of science, giving it a new sense.

### ***The Loss of the Traditional Sense of Science and the Emergence of the Modern Sense***

The change of meaning that science experienced was preceded and determined by the change that occurred in the epistemological basis of science, which reduced science to its empirical constituents, excluding its hitherto non-empirical disciplines. This newly invented meaning was soon established worldwide owing to the dominance of the Western world, which – having won the highest scientific and academic authority – came to dictate the academic institutions around the world. This dominance is now so naturally settled that the prior meaning of science and its epistemological underpinnings are lost to the great majority of people, even in the Muslim countries; so much so that in schools – from the elementary to the high school – and universities around the world, the modern sense is viewed as the obvious and uncontested meaning of science. Due to the general obscurity of the traditional sense of science and the familiarity of the modern sense, the latter shall serve as the starting point of the historical survey in this article.

Science in this modern sense – which will henceforth be referred to as the *positivistic* conception of science – underwent a number of changes in the course of the nineteenth and twentieth century's. Depending on how they understood the meaning of science, Western scholars differed in their judgment of the relation of science to spirituality and sanctity.

### ***Science as Opposed to Philosophy and Religion***

The positivistic understanding of science enjoyed its heyday in the second half of the nineteenth and the first half of the twentieth century. The outstanding champion of this conception of science in the nineteenth century was Auguste Comte. He identified three historical stages in relation to humankind's approach to knowledge: the divine or theological, the metaphysical, and the positive or scientific. As such, science supplanted religion and metaphysics. Science, Comte and other likeminded intellectuals of that period maintained, rendered religion and metaphysics entirely dispensable, for it contained all of their benefits and functions. Religion and metaphysics were thus regarded as merely prefatory, preparing the human mind for science: Once achieved, science sufficed humankind, rendering obsolete the previous

sources of human understanding. Science was essentially independent of religion and metaphysics, and with the development of the human mind, religion and metaphysics were bound to vanish, opening the way for science.<sup>3</sup>

### ***The Scope of Positivistic Science in the Nineteenth Century***

Comte held that science had the answer to all questions that may occur to the human mind. Any question concerning which a prophet or a philosopher had ever made a judgment or an observation, science could judge, for it was in fact the latter that was the genuine arbiter possessed of the legitimate resources for proving or disproving views and beliefs. The final achievement of science as defined by Comte was a new ontology – materialism – and a new religion – the religion of humanity or humanism. In proselytizing this new way of life, this new faith, Comte – in the manner of the Disciples of Jesus – wrote letters to the kings and emperors of his time.

Marx was another nineteenth-century figure with a claim to scientific knowledge. Though granting the rival intellectual trends – religious, capitalistic, liberalistic – the title of ideology, he disparagingly described them as “subjective.” His intention in doing so was to highlight his own “scientific” ideology.

These two examples suffice to show that the nineteenth century was a period in which “scientific” schools of thought and ideologies emerged. The predominant view of this period was that religious, mythical, philosophic, and metaphysical thought lacked the credentials to serve as sources of scientific knowledge, though they may serve as topics for scientific investigation. By studying these modes of thought and offering new solutions and judgments concerning the questions they were formerly thought to have answered, science could cater to the needs for which humankind turned to these traditional sources of thought. It was in this spirit that Durkheim characterized religious propositions as unscientific and anticipated the elaboration of a science of ethics that he labeled *collective ethics*; for he believed science was capable of formulating a modern discipline of ethics.

### ***Science at the Turn of the Twentieth Century***

In the last decade of the nineteenth century, scholars and intellectuals started questioning whether science in the positivistic sense could actually address ethical, spiritual, and metaphysical propositions and judgments. Although questions emerged as to the validity of the positivistic of sense, science still enjoyed a unique place that distinguished it from the non-empirical sources of human thought and belief. Sense-perception was still the principal source of knowledge, and that the mind in the process of formatting scientific knowledge by means of hypotheses and theories derived from non-sensory data is independent from other activities of the mind. This process truly remains independent. In light of it, scientific knowledge results from the interaction between this activity of mind and the senses on their working on the empirical experimentation.

### ***The Insurmountable Rift between Science and Moral Values***

The first discernible development that took place in this period of time was that the intellectual community gradually came to realize the limited function of empirical science: As it was grounded in experimentation, science was incapable of evaluating normative and valuational propositions. Science may legitimately investigate through its empirical means and methodology the objective and historical context in which norms and values develop and are entrenched, but it is not entitled to determine the truth or falsity of normative and valuational propositions. Thus, the separation of science and moral values that ensued was a natural outgrowth of the epistemological foundations of positivistic science.

When sense-perception is venerated as the only means of gaining knowledge of the external world and assessing the truth of scientific propositions and *a priori* reason is divested of the capacity to shed light on objective reality, normative and valuational propositions are haplessly deprived of any means by which they could be evaluated. The only plausible account that may be posited concerning these propositions based on this purely empirical epistemology is that they are invented for the sole purpose of fulfilling certain individual or social needs.

Hume, the prominent empiricist philosopher of the eighteenth century, had already pointed out the unempirical nature of moral propositions.<sup>4</sup> His philosophic

insight went neglected during his own lifetime, gaining acceptance almost a century after his death. Driving the same point home, Max Weber in the second decade of the twentieth century maintained – in his celebrated lecture “Scientist and Politician” – that making value judgments was a social and political function that ought to be undertaken by political parties and other such entities. Thus, academia, unconcerned with norms and moral judgments, must confine its studies to assessing empirically testable propositions and determining the correct methods of scientific experimentation and observation.

### ***The Separation of Science and Metaphysics***

Purging science of metaphysical principles and propositions was another development that took place in the first half of the twentieth century. The logical positivists of the Vienna Circle were especially bent on ridding science of all metaphysical contamination, and they strove hard to achieve this. In the name of championing the independence of scientific knowledge, they dismissed metaphysical propositions as nonsense and meaningless.

Ironically, it was these same radical tendencies, which strove for scientific purity that in time caused science’s fall from grace and highlighted its limitations. Consequently, science was increasingly viewed as instrumentally valuable rather than truly depicting objective reality.

### ***The Practical Relation between Science and Moral Values***

The realization that science was incapable of assessing value judgments demanded a reevaluation of the relation between knowledge and value. The conclusion of this reevaluation was that although science was inherently independent of value judgments, there was an external link that connected the two. In other words, though science – which is inherently indifferent to social norms and moral values – enables human society to predict future events and prevent the occurrence of adverse phenomena, human society avails itself of the benefits of science only in so far as they concur with social norms and values – which are products of the intuitive and passionate elements in the human existence. Norms and values play a decisive role in the cultural arena: without them culture ceases to exist.



Values by their very nature defy scientific examination, science being inherently incapable of determining their legitimacy. In the same vein, values cannot directly contribute to the content or structure of science. There is, however, another way in which they can contribute to science: Values are capable of cultivating an environment conducive to scientific progress, just as science is capable of promoting moral values. It is in this way that values play a role in promoting or inhibiting scientific progress. The subjects of scientific research and the social environment conducive to scientific research are either determined by the governing values and norms of a society or are at least affected by them.

### ***The Limitations of Science***

Due to this change of perception concerning the value of science, scientists lost the position and prestige they enjoyed following the Enlightenment. In the nineteenth century, the prominence of science had emboldened scientists to encroach on the province of ideology and cultural and social values, playing the role of prophets. Criticizing this intellectual hubris, Vilfredo Pareto, the Italian sociologist and economist, ridicules the scholars of the nineteenth century as being fools.<sup>5</sup> Human and social sciences too were confronted with their limitations in the twentieth century, and thus the scholars of these disciplines – relinquishing their hitherto position as agents of enlightenment – took on, in the words of C. Wright Mills, the role of the technocrats of the society.

### ***The Structural Interconnectedness of Science and the Non-Empirical Sources of Human Thought and Belief***

Not all Western intellectuals, however, were satisfied by the discussions that had taken place concerning the relation of science to spirituality and morality. The Frankfurt School, which took shape in the twentieth century in opposition to the Vienna Circle, granted cultural and social norms and values an even greater role. These neo-Marxist intellectuals held that norms and values, in addition to their practical function in determining the scope and trajectory of scientific development, were also at work in shaping the structure of science. Although the views of the Frankfurt School went largely neglected at the time, they eventually made their way first into popular culture and subsequently into academic and intellectual circles.

The debates spurred by the views that came out of the Vienna Circle cast serious doubt on the central assumption of this circle as to the meaninglessness of metaphysical propositions. It was thus that the later Wittgenstein revised his view of metaphysics as expressed in the *Tractatus*, characterizing it in his later philosophy as an independent language-game.<sup>6</sup> It was in fact the criticisms directed toward the views of the Vienna Circle that helped bring into existence the new discipline of philosophy of science. One of the themes strongly rebuked by these criticisms was the structural detachment of scientific knowledge from the non-empirical sources of human thought and belief.

### ***Scientific Paradigm Shifts***

Thomas Kuhn in the 1960s introduced the idea of scientific paradigms.<sup>7</sup> Paradigms are structural models of scientific knowledge that are not obtained by empirical and scientific means. Unlike the propositions of empirical science, whose advance and development is accumulative and detached from human bias, the change that characterizes paradigms are, on the one hand, revolutionary and instantaneous and, on the other, at the mercy of the biases of the scientific community. In the same vein, Lakatos proposed the theory of “research programs”,<sup>8</sup> that the changes that affect the scientific paradigms are themselves impervious to empirical criteria. And finally, Feyerabend in his *Against Method* ridiculed what is commonly referred to as scientific methodology.<sup>9</sup>

### ***Doubting Science’s Capacity to Reveal Objective Reality***

The influence of non-empirical sources of human thought and belief on the structure of science was thus acknowledged. It ought to be emphasized that this acknowledgement came about against the backdrop of two previous developments in the history of Western thought and culture. One was the prevalence of sensationalism and positivism in the nineteenth century, which had resulted in the rejection of *a priori* reason as a legitimate means for discovering reality. The second development was the rise of modern Enlightenment in the sixteenth century, which effectively dismissed intuition and revelation as genuine sources of knowledge.

Modern enlightenment, having lost its rationalistic foundations in the nineteenth century, was now affectively confined empirical science. And now, with the rejection of science's ostensible autonomy and the acknowledgement of the active participation of non-empirical sources of human thought and belief in science, the modern dogma of science's inherent capability in shedding light on objective reality was called into question. Science had been confined to empirical and sensory data in the nineteenth century and now in the twentieth century it was realized that the foundations of science are grounded in non-empirical sources of human thought and belief. The natural conclusion of these two historical developments concerning the nature of science was the acknowledgment that in its principles and structure science was ultimately akin to the non-empirical sources of human thought and belief, thus lacking a distinctively empirical identity as was formerly believed. As such, science was no longer viewed as the antithesis of ideology, metaphysics, mythology, and the like but as merely one of a number of possible interpretations and conceptions of the objective world that facilitate humankind's exploitation of nature.

### ***The Historical Progress of Doubt***

Thus, the position of positivistic science was increasingly questioned, its epistemic and truth value being no longer accepted as a matter of fact. The credibility of positivistic science incurred serious blows in a number of stages. The first sensationalists – whom are often labeled the “naive positivists” – entertained the notion that genuine scientific knowledge could be attained solely by means of induction and by processing the empirical evidence gained through the physical senses. One of the typical figures and forerunners of this mentality in the sixteenth century was Francis Bacon.

But in the nineteenth century, the mind's active contribution to the process of scientific investigation was acknowledged – owing largely to Kant. Though this acknowledgement did weaken to some extent the previously unquestioned authority of science, it fell short of granting the mind a more fundamental role in shaping the structure and content of science. For, though it was acknowledged that the process of scientific investigation may have non-empirical beginnings, it was still maintained that the process itself plays out in the context of empirical data and sense-perception,

and therefore science retains its empirical integrity. Hypotheses were justified only after being subjected to rigorous empirical examination.

### ***Verifiability vs Falsifiability***

The nineteenth-century positivists of the Vienna Circle were willing to concede this relatively insignificant function of the mind. But the next blow to the formerly unquestioned authority of science came at the hands of Karl Popper in his criticisms of the positivistic conception of science. He showed that inductive verification is never able to justify a scientific hypothesis. Therefore, there are in fact no empirical tests that could enable science to acquire knowledge, to proffer certainly established propositions. Popper was of the opinion that scientific methodology can at best falsify hypotheses if they were found to be incorrect. In this way, he strove to maintain the integrity of scientific knowledge and its distinction from other areas of human belief.

Furthermore, the epistemological scrutiny of philosophers of science led them to the conclusion that – as opposed to Popper’s supposition – pure observation, destitute of mind’s active contribution, is incapable of falsifying hypotheses. Sensory observation was thus shown to be incapable of verifying or falsifying hypotheses. The highest achievement that scientific experimentation may acquire is *justifying* a certain hypothesis, and justification is indicative primarily of a mental state rather than objective reality. In this light, the interdependence of scientific belief – in structure and content – and the non-scientific sources of human thought and belief – which were hitherto regarded as being speculative rather than productive of genuine knowledge – was elaborated. Consequently, the dogma of the superior epistemic and truth value of science was shattered.

### ***Philosophical Reflections on Empirical Science***

Of course, as mentioned above, the truth value of sense-perception and its ability in showing objective reality had already been doubted and refuted by the more philosophically astute intellectuals of the eighteenth and nineteenth centuries. Recognizing the limitations of sense-perception, Hume, who was himself an empiricist, not only drove a wedge between science and value judgments but also

came to deny the truth value of science, a stance which placed him in the ranks of the skeptics. Nietzsche, another of the more perceptive Western philosophers who acknowledged the limited scope of empirical science, advocated the priority of human will and choice in forming the various systems of human belief.

Islamic philosophers, however, had early on highlighted the limitations and deficiencies of empirical science. In his *Illahiyyat Shifa*, Avicenna explicitly affirms that sense-perception is in need of reason and rational abstraction in order to engender scientific knowledge.<sup>10</sup> In *Mubalatah* as well as in *Mana'iq Shifa'*, he remarks that deprived of reason and rational analysis, sense-perception is incapable of producing knowledge and that therefore knowledge is essentially and primarily a quality of reason and it is only secondarily attributable to observation.<sup>11</sup> Thus, Avicenna held that in producing empirical science, sense-perception was beholden to reason.

These philosophical observations concerning the shortcomings of empirical science were, however, entirely neglected by the Western intelligentsia of the nineteenth century – a neglect that engulfed the human as well as the natural sciences. But the twentieth century saw a reemergence of these critical observations, with one fundamental difference: By this period the epistemic value of all the other sources of human belief had already been rejected, and this compounded the epistemological crisis. In other words, since it was now demonstrated that empirical observation could at best justify scientific hypotheses (rather than verifying or falsifying them) and that the other sources of human belief lacked any objective reference, the realization that science and the other sources of human thought and belief were interdependent not only cast doubt on the objective value of scientific propositions but also seriously challenged the possibility of acquiring empirical science. And this fundamentally subverted the modern world's claims to enlightenment.

### ***Postmodern Philosophies***

Postmodern philosophies owe their emergence to the intellectual milieu that was shaped by the above philosophical problems. All postmodern philosophies, in spite of their drastic differences, share one unifying factor: their skepticism concerning the

epistemic value of modern science and their lack of interest in the idea of enlightenment – a defining feature of modernity. The modern world alleged that the authority of tradition, intuition, and revelation in the pre-modern world hindered the human being's endeavors to discover the objective world. With this pretext, reason was reduced to an instrument of empirical science – the ostensibly true source of objectively verifiable knowledge. Postmodern thought, however, rejected as immature the empirical and instrumental rationality of the modern world, arguing that the fundamental qualities that define the non-empirical sources of human thought and belief are equally characteristic of empirical science.

(This is, of course, not to overlook the differences that postmodern philosophers have with regard to their accounts of which non-empirical sources influence empirical science and in what ways. Lyotard identified myth, Derrida metaphysics, Foucault drawing on Nietzsche – social control, and Gadamer influenced by his teacher Heidegger – tradition as the decisive non-empirical factor in the formation of science.)<sup>12</sup>

According to postmodern thought – regardless of the divergent systems of the particular thinkers – science is intertwined with the historical and cultural context in which it develops. As such, the influence of culture and the cultural trends on science goes beyond its application and practical utility. Postmodern thought entails pluralism: not merely a cognitive and subjective pluralism confined to the plane of human understanding but an objective pluralism that implies a multiplicity of truths. In reaching this conclusion, postmodern thought is not breaking with the history of Western thought: it is rather simply the logical continuation and extension of modern thought. Modernity – with its peculiar definition of enlightenment and the path it takes through empiricism and positivism – can lead to no plausible conclusion other than postmodernism.

### ***The Cultural Identity of Modern Science***

From what was said in the above it should be clear that, as opposed to its own claim to cultural neutrality, modern science is in fact more than a mere accumulation of sense data and empirical investigation but is strongly influenced by the cultural orientation of the scientists that cultivate it. For this reason, the transfer of scientific

theories from one cultural environment to another inevitably involves the transfer of the cultural elements of the former to the latter with numerous ramifications for the target culture and civilization.

Modern science was from its very beginning associated with certain cultural factors. But so long as the prevailing scientific conception was positivism, empirical science was regarded as genuine knowledge without a substitute and as independent of culture and ideology. It was this false guise of neutrality that facilitated the rapid spread of modern science. Taking this false appearance as a bona fide expression of the identity of modern science, non-Western countries including Muslim countries warmly welcomed it. In their credulity, these recipients of modern science viewed this new import as the collective heritage of humankind that belonged not to a particular region or culture but to all people. As such, they expended their human and economic resources in its advancement, and so it gradually took root in their native cultures. Over time modern science was so entrenched in these host cultures that their people came to assess the credibility of their beliefs and traditions in reference to it.

### ***The Impact of the Positivistic Conception of Science on Islamic Culture***

Embracing the positivistic conception of science, the Muslim world could no longer view metaphysics, theology, mysticism, jurisprudence, and the other religious and moral disciplines as constituting genuine science. These areas of study were now non-scientific disciplines whose main persisting function was to serve as subjects for modern scientific examination. With the intrusion of modern science, the scientific study of religious topics could be pursued solely from a vantage point external to religion itself, no longer from within religion.

Once this modern positivistic view of science became established in the Muslim world, it supplanted the religious belief system, which was formerly regarded as the sole authority in articulating all matters related to the microcosm and the macrocosm. Instead of their religion, the Muslims now had a new belief system that originated in an alien civilization with fundamentally different cultural foundations. This new belief system, having been assimilated into the official programs of the

academic institutions of the Muslim countries, was advertised as genuine scientific knowledge, thus forging a new cultural identity modeled on Western culture.

From the very beginning of this process of cultural assimilation, Muslims were aware of the inconsistency of the imported cultural elements with their religio-cultural identity, especially in relation to the human sciences. When they encountered modern scientific theories that were incompatible with their traditional belief system or a literal interpretation of their religious texts, they were compelled to pursue various paths to reconcile this apparent dichotomy. In most cases, however, this attempt at reconciliation was achieved at the expense of the traditional belief system: Muslims would often alter their religious tenets or reinterpret their religious texts in order to accommodate the modern scientific theories. These reinterpretations that obtained as side effects of the assimilation of modern science into the Muslims countries were also in large part borrowed from the antecedent attempts of Western theologians who had also grappled with reconciling modern science with their Christian belief system. It was thus that the introduction of modern science to Muslim countries ultimately led to tectonic shifts in the deepest cultural strata that inevitably involved a reconstruction of the foundations of the religious belief system – all in order to accommodate modern science.<sup>13</sup>

### ***A Secular Interpretation of Religion***

So long as the positivistic conception of science prevailed over the minds of Muslim scientists and intellectuals, they inadvertently accepted the implications of this conception. But now that positivism has lost its former glory and predominance and its cultural and ideological nature has been exposed, we have before us a fresh opportunity to provide a genuine solution to the apparent dichotomy between science and religion. The way to attain this solution is by reevaluating scientific theories based on the cultural and religious foundations of the Muslim countries.

As long as Muslim intellectuals persist in viewing their own culture and religion through the prism of modern science, they will naturally tend to favor religious and cultural reformations that corrupt the very foundations of their traditional belief system rather than trusting their religious and cultural heritage and striving to discover its true meaning. The outcome of this tendency toward religious and



cultural reformation is necessarily the establishment of a secular and worldly culture that offers a new and profane interpretation of religiosity that excludes all transcendental, sacred, and celestial elements. What remains is secular religion. The main feature of secular religion in contrast to true religion is that whereas the latter caters to the contemporary and regional needs of its believers by virtue of accommodating a progressive reevaluation of religious sources based on its own traditional principles and foundations, thereby steering the society in the direction of becoming more religious, the former expends the cultural heritage of the Muslim world in the service of the profane and worldly norm of modern humankind.

### ***Reconstructing Modern Science, Rediscovering Religious Science***

Taking modern science's cultural identity into consideration, it is possible to reverse the modern trend and reconstruct science based on the principles and foundations of religious metaphysics.<sup>14</sup> To this end, Muslim intellectuals must readjust their approach: Instead of relying on and striving to understand Western theories, they must embark on discovering Islamic knowledge and culture anew, especially in light of the more fundamental strata of Islamic tradition—that is, Islamic philosophy, mysticism, and theology. Such a rediscovery of Islam would enable us to subject science to a structural reformation, thus constructing a new scientific paradigm, which would necessarily beget a new and drastically different science.

This new science which is grounded in a religious metaphysic and ontology and which draws on the intellectual resources of Islamic culture and civilization will undoubtedly be sacred and transcendent. As such, instead of confining existence to the material, sensible, and empirically testable, this new and sacred science elevates physical and sensible phenomena in light of its rational and religious principles, regarding them as signs and symbols of God.

### ***The Postmodern Interpretation of Religion***

The last but not least important point that ought to be pointed out is that just as the modern and positivist conception of science is incapable of producing sacred and transcendent science, so too is postmodern thought. Postmodern philosophical trends, though critical of the positivistic definition of science, are nevertheless

founded on the same principles and foundations. Postmodern thought critiques modernism with recourse to the same principles that are accepted by modernism. Hence, the skepticism and epistemological and ontological relativism of postmodern thought.

Should the religious conception of science be sought in light of postmodern views and their epistemological principles, though this would prima facie narrow the gap between scientific and religious thought, allowing religion to propound its articulation of the world and of itself, this religious articulation would be only one of a number of equally justifiable articulations. Based on postmodern thought, there are no objective criteria that could be invoked to prefer the religious articulation over its non-religious rivals.

In other words, postmodern thought allows for a religious conception (and other similar conceptions that derive from such other non-empirical sources of human belief and thought as myth, ideology, philosophy, and social control) of the world only because science has lost its truth value and unique status as a means of access to the objective world and is now regarded solely as a practical instrument and thus as an inferior product of human culture. It is not because the status of religion has been elevated. Therefore, if religious science were to be erected in this same conceptual framework, it would be no more than a practical instrument and a human product. Religious science thus fashioned would be a cultural and historical phenomenon whose origins could be traced to certain elements in the history of human culture and civilization. To accept the fundamental principles of postmodern philosophies – which are some of the same of those of modern and positivistic thought – will place Muslim intellectuals, who are preparing to take their first step in articulating a religious science, in the last step to which modern thought has led after many centuries of development: the end of enlightenment and the predominance of skepticism, relativism, and absolute historicism.

### ***The Common and Distinctive Elements of the Modern and Postmodern Conceptions of Science***

The common element that binds the modern and postmodern conceptions of science – and that which has ultimately led postmodernism to skepticism – is their

negation of the scientific value and objective content of the non-empirical sources of human thought and belief.

Positivism developed in the context of modern thought out of two very important epistemological principles. The first was the negation of the epistemological value of intuition and revelation. This was the common principle that bound positivism and modern Enlightenment together, for the latter was the intellectual movement that sought to refute the legitimacy of all non-rational sources of human thought and belief and to articulate a strictly conceptual and rational account of the world. It was on account of this common ground between the Enlightenment and positivism that the approach of German romanticism to intuitive knowledge was denounced as being opposed to modernism. The second epistemological principle was the negation of the epistemological value of pure reason and the confinement of rationalism to empirical science.

Based on the above two negative principles – the negation of intuition and revelation and the negation of reason – positivism restricted science to empirically testable propositions, alleging that science so defined is entirely independent of the non-empirical sources of human thought and belief. The postmodernists, concentrating exclusively on the positivistic definition of science, criticized the claim that empirical science was independent. And, naturally, criticizing this positivistic assumption while endorsing its two epistemological principles resulted in the crisis of modern enlightenment and the diminution – or rather loss – of the value of empirical science.

Postmodernism fell short of criticizing positivism's two negative epistemological principles so as to be able to defend the epistemological value of revelation, intuition, and theoretical as well as practical reason. Postmodern philosophers contented themselves merely with challenging positivism's definition of science. Although the religious cultures of the world – including the Muslim world – received this criticism with great delight, for it relieved them of the cultural pressure to which they were subjected on account of the positivistic definition of science, but it failed to equip them with the necessary means to defend and articulate a religious and sacred conception of science.

### ***The Requirements of Sacred Science***

Religious or sacred knowledge is possible only if we succeed in extending our criticism of positivism beyond its definition of science to include its epistemological underpinnings, which are also the implicit tenets of postmodern thought. For, although the positivistic definition of science – whose lifespan is no longer than a couple of centuries – is utterly unacceptable, restricting our criticism to this definition – which is what postmodern thought does – is equally unacceptable. The main purpose of our criticism must be to call into question the presupposed confinement of science to empirical phenomena. The higher levels of science ought to be pursued in the deeper layers of truth – and it is these layers that can serve as the true and unshakable basis for empirical science, which positivism claimed to champion.

The preliminary steps to such an approach already exist in the Muslim world. The intellectuals of the Muslim world took up the defense of the rational and intuitive foundations of science long ago, and in so doing they also prepared the ground for the development of empirical science. Accepting revelation and its epistemological validity has given rise to a peculiar mode of transmitted knowledge in the context of Islamic rationalism that derives from revelation. This mode of transmitted knowledge in turn engendered numerous disciplines of religious studies, which – in addition to being derived from religion – partook of scientific credibility.

Considering this historical background and traditional heritage, we must ask why is it that despite the broader and deeper usage of the terms *science* and *reason* in the traditional and religious corpus, the academic institutions of the Muslim world persist in applying these terms in the same limited context delineated by modernism – a context that is incompatible with the usage of those terms in the context of Islam and the Islamic civilization. In their attempts to revive religious science, Muslim intellectuals must – in addition to challenging the epistemological principles and foundations of the modern world and especially those that serve as the implicit or even avowed presuppositions of postmodern thought – be prepared to reply to the criticisms and objections that Western intellectuals may raise against the religious conception of science and its epistemological foundations. It is of utmost importance that Muslim intellectuals take up this task, for by strengthening the theoretical and

ideological aspect of the problem, they can strengthen the scientific fortifications of the Islamic culture and civilization.

### Notes

1. Shapin, Steven. "Science" in *New Keywords: a Revised Vocabulary of Culture and Society*, edited by T. Bennett, L. Grossberg, and M. Morris. [n.p.]. (Wiley-Blackwell Publishing, 2005), pp. 314-317
2. Ayer, A. J., *Language, Truth and Logic*, (London: Victor Gollancz, 1936); *The Foundations of Empirical Knowledge*. (London: Macmillan, 1955)
3. Aron, Raymond. *Mar'alil Asas Andshih dar Jami'ihshinas* [*Main Currents in Sociological Thought*], translated into Persian by Baqir Parham, (Tehran: Sazman Intisharat Amuzish Inqilab Islam, 1364 A.H.), pp. 83-14
4. Hume, David, *A Treatise of Human Nature*, edited by L. A. Selby-Bigge. (Oxford: Oxford Univeristy Press., 1951)
5. Ibid., p. 508
6. Wittgenstein, Ludwig, *Risalih Mana'iq Falsafe*, translated into Persian by Mir Shams al-Din Adib Sultani, (Tehran: Amr Kabr, 1370 A.H.)
7. Kuhn, Thomas S., *Structure of Scientific Revolutions* (2<sup>nd</sup> edition), (Chicago: Chicago University Press., 1970)
8. Lakatos, I. and Alan Musgrave (eds.), *Criticism and the Growth of Knowledge*, (Cambridge: Cambridge University Press., 1970)
9. Feyerabend, P. K., *Against Method: Outline of an Anarchistic Theory of Knowledge*, (London: Verson, 1988)
10. Avicenna, *al-Ilahiyat min Kitab al-Shifa'*, edited by Hasan Hasanzadeh, (1376 A.H.), p. 310
11. Avicenna, *al-Ta'liqat*, (Qom: Maba'ah al-Islami, 1404 AH), p. 148; *al-Shifa'*, (Cairo: Nashr Wizarah al-Tarbiyah wa al-Ta'lim, 1956), pp. 58 & 69

12. Lyotard, Jean-Francois. *Padidehsbenasi*, translated into Persian by Abd al-Karim Rashidian, (Tehran: Nashr Niy, 1375 AH); Michael Foucault, *Danish wa Quadrat*, translated into Persian by Muhammad Zamiran. (Tehran: Hirmis, 1378 AH); Hans Georg Gadamer, *Truth and Method*, (London: Sheed and Ward, 1975); Shahrukh, Haqiqi. *Gudbar az Mudirnetib, Foucault, Lyotard, Derrida*, (Tehran: Agah, 1382 AH)
13. Hamid, Parsaniya, *Sunnat Idu'uluzbe*, (Qom: Bustan Kitab, 1385 AH)
14. Jawadi Amuli, Abdullah, *Manzilat 'Aql dar Hindiseb Ma'rifat Dini*, edited by Ahmad Wa'izi. (Qom: Markaz Nashr Isra, 1386 AH)