OAKESHOTT ON SCIENCE AS A MODE OF EXPERIENCE

by Byron Kaldis

Abstract. I offer a critical exposition and reconstruction of Michael Oakeshott's views on natural science. The principal aim is to enrich Oakeshott's modal schema by throwing light on it in terms of its internal consistency and by bringing to bear on it recent developments in philosophy in general and the philosophy of science in particular. The discussion brings out the special place reserved for philosophy, the crucial tenet of the separateness of these modes seen as Leibnizian monads as well as the special status allowed to science. It considers the possibility of combining one moment of philosophical thinking, namely ethics, with science in the midst of such modal separateness. I first offer a general introduction of how to approach Oakeshott's views on science. The next section stresses philosophy and its relation to science. This is followed by an elaboration of what the modes of experience are meant to be and how science is placed among them. An examination of Oakeshott's more particular views on science concludes the essay.

Keywords: definition; designation; ethics; holism; mode of experience; naturalism; naturalized epistemology; Michael Oakeshott; philosophy of science; religion; science

The obvious outcome of our total experience is that the world can be handled according to many systems of ideas, and is so handled by different men... science and religion are genuine keys for unlocking the world's treasure house. Neither is exhaustive or exclusive of the other's simultaneous use. And why, after all, may not the world be so complex as to consist of many interpenetrating spheres of reality?¹

—William James ([1902] 2002, 122)

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But the comparative freedom of the artist springs not from any faculty of wakefulness (not from any opposition to the dream) but from his power to dream more profoundly; his genius is to dream that he is dreaming. And it is this that distinguishes him from the scientist, whose perverse genius is to dream that he is awake. The project of science . . . is to solve the mystery, to wake us from our dream, to destroy the myth: and were this project fully achieved, not only should we find ourselves awake in a profound darkness, but a dreadful insomnia would settle upon mankind, no less intolerable for being only a nightmare.

—Michael Oakeshott ([1947] 1975, 160)

Despite the ominous language of the latter passage, we must not be misled into jumping to the wrong conclusion with regard to Michael Oakeshott's overall verdict on science. Oakeshott had a rather favorable, if detached, appreciation of natural science. He employed, as indeed was fit given the general exposition of the subject matter of *Experience and Its Modes* (1933), a neutral way of positing science as one among the most prestigious of modes of experience. Nevertheless, the mood expressed in the quoted passage contrasting literature and science, casting the latter in an unfavorable light, is genuinely negative and genuinely Oakeshottian. It serves as a reminder, at this early stage of our discussion, of the need for stressing the interrelationships of areas exhibited within Oakeshott's oeuvre, interrelationships that must be set as the interpretative key in any understanding of what he was trying to convey. Oakeshott did not care to pose as either an apologist for or a detractor of science, except to criticize aberrations of the scientific mode of experience he identified as scientism (as he did also in the case of analogous deformations of the other modes). It is such a scientism that is castigated in the dictum quoted at the start: a scientism that does not let other voices be heard, scientism as a "superstition about scientific enquiry" ([1947] 1993, 99), the "neo-Pelagian assumption" (p. 105).

Notwithstanding his judicious way of laying down the elements of the scientific mind, however, Oakeshott's treatment of science is at some points ambiguous, not free of contradictions,² and at times doctrinaire and repetitive. It is thus difficult, if not superficial, to catalogue it. His view may strike some contemporary readers as naive in certain respects, given significant postwar developments in the history and philosophy of science. His position may seem narrow or austere, given the proliferation of contemporary proposals in favor of subtler models of science or the recent radical reappraisal of experiments and their place in scientific practice or the more elaborate "theories of theories" in science currently discussed. To so judge Oakeshott, however, for failing to envisage where the course of intellectual fashion would be heading, merely by reading pages of his from the 1930s or even later, would certainly be an anachronism no less than an injustice committed against the fecundity and the relative complexity of his thought on science.

His views of science, although not intricate in their detail, are complex in their relationship to other areas of his thought. Given that contemporary developments themselves are ridden with internal tensions, Oakeshott's views should not be judged as flat or unrefined as they may appear after a first reading. To be sure, philosophy of science has become enormously more sophisticated and is currently on a roller-coaster course of ever more diffuse and richer hybrids of historical, sociological, philosophical approaches or other interdisciplinary blends.

Oakeshott's treatment of science is quite interesting when assessed from the point of view of his entire work, juxtaposed to what he has to say about religion, politics, and art. To hold that there is a distinctively Oakeshottian view of science as opposed to simply "Oakeshott's views on science" is questionable. Interest is appreciably increased when his views on science are placed either in juxtaposition to other intellectual developments or in relation to his overall philosophical outlook. The latter holds both in relation to the negative side—his celebrated critique of what he takes as technical rationalism ("raisonnement" [1991, 25]) to be, that is, his rejection of any "scientific politics" or the wrong type of "philosophical politics," as well as in relation to his more positive pronouncements regarding religion and art.

I do not think that, as far (and only as far) as my present theme is concerned, there is significant alteration in Oakeshott's ideas that would warrant any logical inconsistency. What he has to say about science in his later work *On Human Conduct* (1975), or briefly in other places, does not constitute a major departure from that in *Experience and Its Modes*. Compared to his later works, such as "The Voice of Poetry in the Conversation of Mankind" ([1959] 1991), which could be more readily reappropriated by contemporary thinkers within a political or social context, *Experience and Its Modes* is a work directly relevant to discussions of science. It is thus better suited to facilitate links with modern epistemological pursuits such as holism, the underdetermination thesis, the Duhem-Quine thesis, reductionism, the notion of scientific paradigms or conceptual schemes, unity of science, the (ir)relevance of ontological claims to morality, or scientific essentialism and the return of naturalism.

I offer a reconstruction of certain central theses of his so as to stress interrelationships within his overall scheme that both illuminate and cast a critical light on his position on science. I also draw lines of connection reaching to some major developments outside Oakeshott in order to see if his somewhat isolated status could be lessened but also in order to enrich our understanding of his work thanks to some light from these other sources. Suitably but consistently reconstructed, Oakeshott himself may be seen as a source of such light, too, cast on others.

One of my main claims is that Oakeshott reserves an elevated status for philosophy, as he conceives it. Philosophy is the logical ground of the modes

of experience. Philosophy envelops the modes while, in turn, their analysis envelops one of them-science. There is in this a series of nested relations. Instead of following an order of exposition starting bluntly with what Oakeshott has to say about science in particular and in isolation and then trying to connect this with the rest, by ascending toward the more general, I do the reverse: I follow a logical order of nested relations moving from philosophy to modes to science. This is in congruence with what he says in On Human Conduct (1975, 10-11) where he invokes the notion of "conditional understanding"-that is, inquiry into a certain field, which rests on prior epistemological postulates or conditions-an equivalent to modes. This exhibits a structure of nested levels of ascending unconditionality, each level of conditional understanding moving higher up from studying a certain item to studying its postulates and on toward the next higher level of studying the conditions of the one immediately below (for example, from identifying a thunderstorm to studying it as an electromagnetic event; from recognizing a piece of paper as of a certain form to studying the geometrical properties of this form and onward to studying the postulates of geometry itself, and so forth). Yet, compared to the earlier Experience and Its Modes, in On Human Conduct we learn something crucial having to do with the unattainable position of philosophy: that there is no highest level of total unconditionality from which to inspect the scala of the lower ones, nor is there such one in relation to which each and every partial understanding is to be asserted. There is only a perpetual process.

PHILOSOPHY AND SCIENCE

Experience and Its Modes begins and closes by delineating the character and function of philosophy. Philosophy is the protagonistic voice. Not surprisingly, each mode of experience is approached as a subject for philosophy. None of the modes exists, in the strict sense, unless philosophy enunciates it. In a nonphilosophical sense, of course, historical studies, everyday practice, political events, religious ceremonies, or scientific investigations do indeed happen, but they cannot be as such unless philosophical thought makes them its subject matter. This is not to say that they are made real by being known; rather, their reality "cannot without contradiction be separated from knowledge" (Oakeshott 1933, 50). It is not as if philosophy were in a position analogous to the cognizing subject coming to discover and represent to itself the independently existing diverse worlds of experience.

This renunciation of a subject/object dualism (1933, 59–60), of there being something supposedly immediate and given, is a thesis reappearing in many guises given the overall neo-idealist framework. This is echoed in Oakeshott's position on science—that there is no independent reality or autonomously existing objects, that science and nature are "inseparable correlatives" (1933, 198). Philosophical thinking animates. It is not merely an interpretation of a given world, "a fixed and persisting datum distin-

guished from and set over against an interpretation or translation of it" (1933, 30). There is no original versus interpretation. The favored theory of truth is not correspondence but coherence-in harmony with there being but a perpetual process and never a total unconditionality (see note 13). In science "a rigid distinction between fact and theory and a belief that facts are and remain independent of the theory which is said to connect them" is false (1933, 42–43). Neither brute sense-datum sensation as a sort of subthought, nor intuition as a sort of hyperthought, "escapes the despotism of significance" (p. 20), by which he means that there is no experience purportedly beneath or above thinking that does not involve conscious judgment, and judgment in turn involves ideas as vehicles of signification. In thinking, a certain thing that is in itself a single whole of existence, a unity, is necessarily disrupted by subject-predicate judgments, and this for Oakeshott amounts to the indispensability of the employment of ideas that necessarily modify by signifying (p. 25).³ Nothing is merely given or outside signification (pp. 35, 38, 48).

There is thus no foundational ground for any kind of experience, no socalled beginning of thought outside judgment. Method and content of inquiry are separated only as abstractions (pp. 175, 192, 198). "The character of what is experienced is, strictly speaking, correlative to the manner in which it is experienced" (p. 9). Strictly speaking, there is no religious science or applied ethics—method and content coming from different areas of experience. This generic fusion of method and content reappears, as expected, in his particular view of science in *Experience and Its Modes*, as we shall see. Consistently with this, in *On Human Conduct* (1975, 17–18) we are told again that in every investigative enterprise like science the method—there called a set of theorems constituting the instrument of understanding—itself "designates the identity investigated," that is, its ontological domain.

So we are called upon to learn right from the beginning of *Experience and Its Modes*, and again at the end, after we have traveled through the modal terra firma (his "archipelago of modes," as he calls them), what philosophy, the animator,⁴ must be. We learn on the very first page that philosophy has erroneously been taken as a *direct* guide to action and that it also may err on the side of piling up bits of knowledge—that is, presenting knowledge as encyclopaedic, as a stockpile of information—or, in contrast, by construing knowledge as universal and singular. This is all wrong, even if at a pardonable infantile stage. At a stroke, on the very first page of his Introduction, Oakeshott dismisses the obsessive dreams of a universal language, a unified science, and an encyclopaedia—Leibniz, Aristotle, and Pliny. (For science as encyclopaedia see Oakeshott 1991, 504.) Philosophy provides the summit, the viewpoint, from which to inspect the differentiated modes of experience and their partial views, the criterion to assess the relative validity of any world of experience.

This does not mean that philosophy should lie outside or beyond science, in the sense of either a suprascience (supposedly, still a science of sorts, only of a second order) or a completion (Oakeshott 1933, 2) or culmination of scientific discourse lying beyond it as a sort of historical end (1933, 349) or hoped-for last stage (p. 350).⁵ In the former we have a rejection of what would later become a basic credo of naturalized epistemology (compare pp. 217–18)—the thesis that natural science must completely displace traditional a priori epistemology. In the latter we meet with a sensible reminder (which also applies to the circularity charge of contemporary naturalized epistemology, that science cannot be the arbiter of its own conclusions) that once you start with science you end up with it—you remain within the confines of the merely scientific. "It is not by pressing scientific experience to its conclusion that we shall discover the concrete totality of experience (philosophy), but only by allowing the abstractness of the world of science to assert itself" (p. 216).⁶

A crucial difference must be noted here with regard to religion. In claiming (pp. 294–95) that religious *experience* is not a different subkind from the rest of practical life but the inevitable culmination or completion of practical life in full degrees of intensity, integrity, and fullness, we are indirectly being told that the opposite holds here, something we can phrase in the terms just given: By pressing practical experience to its completeness we shall arrive at religious experience, whereas by pressing science to its conclusion we shall not reach philosophy.

If, however, philosophy is equivalent to unfettered presuppositionless thought that unfolds the totality of experience *in concreto*, superseding abstract modes (partial views) of experience once it demonstrates their being inadequate, incomplete standpoints, there is no point expecting that "philosophy has anything to learn from the methods of scientific thought, or that the conclusions of philosophy 'must be in harmony with the results of the special sciences'" (1933, 354). This is a far cry from contemporary attempts to vindicate naturalism, especially those that point to incontrovertible findings in cognitive science, empirical psychology, or brain physiology in order to substantiate the naturalist claim that human cognition is as natural as any other ordinary material stuff.

An additional point must be appreciated here. In Oakeshott we have one of the earliest types of argument against the naturalization of epistemology by means of science—that is, against science's usurping the role of traditional philosophical justification of the claims to knowledge. The argument begins by delving into the special character and status of philosophy in order to show its logical distance from the special sciences, thus safeguarding its status. An opposite line of attack proceeds from an analysis of the limitations of science, thus leaving elbow room for philosophy to operate. Although this has been the usual approach, only recently has the opposition to naturalized epistemology advanced theses explicitly designed to grant philosophy its distinctive character and role (vide recent work on a priori or transcendental arguments, their place, function, and somewhat checkered success). It is no accident that Oakeshott's plan commences by means of establishing first how philosophy can never be or replace those other modes, rather than by arguing the other way around, because he makes clear that philosophy, or the totality of concrete experience, the whole world of experience unmodified by arrests and partialities otherwise indispensable (but not necessary), is the logical ground for those modes to be.

To be sure, we do not get a picture of philosophy in complete separation from an analysis of the modes of experience, because the two are to be related. Philosophy is really their animator, as I called it, in the sense that it must deal with them in order to supersede them; it must set up their false concreteness, their coalesced identity, as partial and one-sided in order to break them up, despite natural resistance on their part. Philosophy erects the modes (their identity, that is—not their practical existence) in order to supersede them.

We must pay attention to all of this as a form of argument that is not only significant in its own right but also enlightening in terms of its contemporary parallels. Claiming that we should make philosophy our starting point, recognizing in it the indispensable logical ground of the special arrests of experience, one of them being natural science, envisages philosophy as necessarily "the actual life and nourishment of every abstraction, every modification of experience" (Oakeshott 1933, 350). Philosophy does not and cannot abolish by fiat the partial modes; it only reveals their inherent limitation-that they are abstractions. Yet Oakeshott reminds us that his position does not eliminate the immanent presence of philosophical experience in every partial modification (such as, for instance, science). For him it is a mistake to strike a skeptical stance from a standpoint internal to science itself, coming up with all sorts of limitations that the scientific mode may easily be found to exhibit only to lament that it is fraught with such limits to knowledge. It would be self-contradictory to assert, as a convinced skeptic, the presence of an unavoidable "failure in (every mode of) experience" while at the same time implying by this the logical unavailability of philosophy understood as a superseding of such failures and limitations; the very standpoint from which the presence of such failures was judged could be none other than philosophy.

Oakeshott comes close to recent discussions in analytical philosophy of the use of transcendental arguments. He certainly did not elaborate the point in these terms, but he should have done so, despite the fact that the particular historical type of his inherited neo-idealism may have been responsible for his not taking this extra step for fear of being inconsistent. His position would have been strengthened by such a strategy, and the resort to rhetorical force in place of argument would have been less frequent. It is all very well to argue for the preeminence of philosophy by means of rephrasing the Bradleyan basic thesis that the whole (Bradley's Absolute) needs no contribution from the partial and thus permit oneself to argue that a partial mode, such as science, does not have "the capacity to maintain itself unaltered in the face of concrete experience, and consequently [it cannot] be said to have any specific contribution to make to the totality of experience [philosophy]" (1933, 346). That is, it is all very well unless there lurks a suppressed transcendental argument in this—as I think it does in the case of the aforementioned type of skepticism accused of being self-contradictory.

Philosophy envelops the modes of experience, which in their turn envelop science; science, however, must first be shown to be nested within modes in a specific way.

MODES OF EXPERIENCE AND SCIENCE

A mode of experience represents a moment of arrest or a partial point of view suffered by total experience. That a mode is an arrest on the continuum of total experience must be understood not solely as an imposed privation, a "selective omission," but also as a "construction of a world of ideas"; a mode is not only "separative," it is also "integrative" (1933, 73). Each time human experience reflects on the world it inescapably selects a viewpoint—one side, or certain aspects it groups in a meaningful manner (as, for example, phenomenology explains visual perception)—and in so doing it leaves the rest out. Such selective viewing not only omits certain aspects that if included would make the experience more complete and less one-sided; it also adds on it, that is, constructs an inescapable distortion that makes it depart from the totality of experience. It constructs boundaries delineating its domain, or it constructs definitions of, for example, matter being necessarily corpuscular as opposed to a field of forces. In both cases, each type of experiencing abstracts, either excluding or including aspects of the total. In abstracting, each type of viewing reality (religion versus science, for example) creates its own identity, a way of understanding reality or, in Oakeshott's terminology, a mode of experiencing, that is distinct. But in being distinct and self-enclosed, each such kind of understanding cannot admit its being just an aspectual vision; it cannot but regard itself as if it were the complete vision. The complete vision, however, can be effected only by philosophy, the only type of presuppositionless understanding.

So a mode of experience is an abstraction, yet never merely an abstraction, never merely a mode. While self-contained and homogeneous, it is driven to overstepping itself in a sort of self-delusionary epistemological tactic to "demand to be judged as embodying a complete assertion of reality" (1933, 332).⁷ Distinct, and each self-mesmerized into believing it is the whole (which it is not and can never be), each type of understanding that human experience has created remains separate, allowing no concourse with the others. Modes thus inherently exclude one another and are diversified among themselves by the relative degree of completeness or partiality that each exhibits in comparison to the rest. They are "tight, exclusive, insular" (1933, 345). In the language of *On Human Conduct*, each type of investigative inquiry is an "autonomous adventure in theorizing, insular, inextinguishable, resistant to 'reduction', having its own conditional truth" (Oakeshott 1975, 11).

The emphasis Oakeshott places foremost in *Experience and Its Modes* is precisely on the separateness of these discrete, autonomous, unrelated modes of experience. Thus, strictly speaking, we cannot assert anything jointly about, for instance, a unified or integrated domain called *science and religion* (barring *Zygon*, it seems, from the Oakeshottian archipelago), of Mode₁ *and* Mode₂, together. We are called upon to clarify boundaries, vetoing intermingling relations of domains so as to avoid the chaos and confusion of boundaries not being observed or of the abstract not being kept in proper relation to the concrete.

The importance of the rigid integuments separating modes is attested by the fact that modes are formally and explicitly introduced in their fullness not before page 71 of Experience and Its Modes while their disconnectedness is repeated throughout. The logical form of the error committed in trying to pass from one mode to another is in Oakeshott's terms an ignoratio elenchi (any process of argument that fails to establish its relevant conclusion or any counterargument that fails to establish the contradictory of the proposition attacked). Neither hybridization nor fusion is allowed between modes. (This can be illustrated by a look at intertheoretic reduction and absorption in science-hybridization and fusion, respectively-made prominent in the 1960s by the work of Ernst Nagel only to be savaged by Paul Feyerabend's critique on meaning variance. Or we may consider the current work on the prospects of unified science.) Each mode is sovereign in its world and democratically equal in relation to the rest. Although each mode's judgment is not "equally the assertion of reality as a whole" (Oakeshott 1933, 324), they all are equally assertions. Each is a conceptual enclosure—experience that has necessarily gotten qualified and limited by each mode's distinctive schemata—while concrete experience, in relation to which they stand as abstractions, as self-constraining moldings, is itself always unqualified and complete. The subkind of such a separation that has become more well known, more vilified, more deformed, and more of a *cause celébre* than all the rest is that between the world of practical experience and philosophy.

In a mode there is only *self-containment*, contrasted to the *self-comple-tion* enjoyed by the totality of arrest-free experience. A mode's conceptual apparatus "designates" its objects as more or less individuals or things (objects awaiting further completion), while philosophical thinking "defines"

its objects as elements of concrete individuality. Oakeshott's schism between *designating* and *defining*, although he never spells it out systematically, is of utmost importance. To my mind, it is designed to carry the burden of all sorts of metaphysical theses central to his philosophy. The designation/definition distinction, by being made to bear specifically the burden of the interconnectedness of concepts, permits Oakeshott to place a separate genus of partial experience he calls *indeterminate abstractions*, or quasi-modes, within philosophy barring them thus from having their own status. It also permits him to defend the holistic thesis that, however abstracted from concrete experience or remotely buried a concept may be within a particularized and one-sided mode, it may nevertheless be said to be linked by appropriate conceptual lines to the totality of experience, the purveyor of such lines. It is therefore worth our while to dwell upon this distinction by reconstructing it.

A "mere designation . . . is satisfied with what is separate because it appears to be complete" (Oakeshott 1933, 45; compare 268). This error appears less often in scientific thinking or practice than in historical and practical experience, its natural flourishing ground. Science traces conceptual connections, or generalizations and uniformities in nature, or it lays down laws qua universal statements compared to historical understanding where the notion of a historical individual or of an individual event is naturally asserted as plausible. Modes fall short of full completion "when . . . the attempt to define, the attempt to see clearly and as a whole, is surrendered for the abstract satisfaction of designation" (1933, 70-71). Designating is tantamount to "analysis and abstraction" (p. 28) in the sense of providing a forced definitional baptism of something as per impossibile unrelated to anything else, as if unique, or as entirely inherent. An example illustrating this is Aristotle's morphe (separated from hyle only in, and by, analysis) or Newton's "point mass" or "vectors" in quantum field theories. The reconstruction I offer goes like this. In *designating*—that is, in analytically legislating a separate, abstracted item, or set thereof-the need to subsequently unite this item to the rest takes on the form of a cluster of external relations (extensional definitions) giving rise to collections, rather than to wholes, if seen from the standpoint of the total. These collections, or mereological aggregates, are cases of conglomerates of individually designated items, that is, things analyzed as unique, thus needing completion by means of their placement in an external-to-them environment. By contrast, when an item gets *defined* it is thereby related to a complete whole; it draws its identity from the whole in which it belongs right from the start as opposed to being forced to cohabitate with a conglomerate of independently designated unique items (hence the indispensability of a coherence theory of truth).⁸

No designation is arbitrary or without principles, of course (Oakeshott 1933, 120). Because designating is the crucial operation of producing, by

means of abstractive analysis, the concepts that constitute the essence or determinate character of each mode, the concepts that designation thus produces necessarily fall into place by following a central set of principal themes responsible for each mode's character. The concepts of designation are abstract but not arbitrary or haphazard. Otherwise, we may add, they could not become the subject matter of philosophical thinking when it comes to supersede them. Whereas abstract but homogeneous concepts are expected to resist philosophical superseding, a haphazard one would not even qualify as an opponent. It would be simply unrecognizable. The falling into place here does not mean that the concepts of a certain mode must merely have thematic kinship; it means that they must contain implicitly conceptual (not logical) interconnectedness that is subsequently made explicit by the machinery of definition. I say conceptual and not logical because in the Oakeshottian world it is best to keep in mind that modes, however abstract, are not formal, uninterpreted axiomatic systems akin to logical models or set-theoretic axiomatizations.

While designation cannot but remain limited in simply effecting a fictitious concreteness or "individuality" for the objects of its domains,⁹ philosophical definition, by contrast, is equivalent to the "unremitting pursuit of concrete individuality" (Oakeshott 1933, 45; [c. 1946] 1993, 129, 137). Each mode's baptismal designating results in separate classes of objects appearing as an exclusive kind of its own, thus effecting an illusionary completion, whereas it is really nothing but a mere self-containment seen from the standpoint of the totality of experience. In definition, by contrast, the effected individuality emerges only within what is proper to (unmodified) experience, namely, the twin criteria of independence (from modal abstraction) and self-completion.

Because scientific theory, more than any other mode, is typical in this respect, that is, in its use of designations, I shall explain further why we may connect designating with the idea of aggregation mentioned above¹⁰ without, however, falling into the error of withholding self-containment or unicity to each mode. In the case of the internal state of each mode the function of designating produces abstractions, that is, analyses of concepts referring to objects constituting the domain of each mode; as such, each of these concepts being produced by analytical abstraction is supposedly selfenclosed. This necessitates external relations among them, according to my reconstruction. Standing in such external relations they form the selfcontained whole each mode is. So, compared to definitions, each of the partial worlds of experience that designation affords is unified as a separate mode, yet not by means of internal relations forming the more fundamental definitional network of concepts afforded by the metalevel of the totality of concrete experience. Within each mode the lattice of concepts formed by designating (for instance a certain atomic theory in chemistry) must be homogeneous and internally coherent, but, given that these concepts are

abstractions judged from the point of view of the totality, their interrelations (for example within chemical theory or in its relation to molecular biology) must be construed as instances of external relations. It is only in this sense that I call them mereological aggregates. It also helps us understand that these grids of external relations, that is, the modes, cannot be metaphysically necessary, as indeed Oakeshott repeatedly stresses, without however making his point quite clear. In my reinterpretation, no mode is necessary because, compared to the totality of experience, no object in each mode's domain exhibits any intrinsic determination. This opens up the possibility of internal changes within a mode and leaves room for successor states of modes.¹¹Oakeshott recognizes (1933, 63–64) a movement from a state of "less of a thing" to one of "more of a thing," that is, what we can understand as a continuum from mere designations (of elements as abstract units) to definitions, where the initially merely designatable turns into the definable by being placed into a holistic network of interrelations. That is, it becomes continuously more concrete (mirroring the famous paragraphs 5, 6, and 7 of G. W. F. Hegel's *Philosophy of Right* [(1821) 1952]: In a philosophical definition a [scientific] concept and its presuppositions are not merely held together as a union of two abstractions, but they become an actual concrete unity [Oakeshott (c. 1946) 1993, 129]).

Designation is a "definition falling short of itself" (Oakeshott 1933, 306). Conversely, a definition of a concept reveals its latent reference to reality; this is equivalent to what we have seen above (p. 176) regarding the tendency of all modes to be regarded as complete. Designating may best be understood as the mechanism of semantic reference¹² effected by the conceptual apparatus available within each mode, thus constructing a world of its own, which, even if always partial, is self-contained (or has "its own conditional perfection," in the language of *On Human Conduct* [1975, 17), to the extent that this referring avoids logical contradictions while at the same time labors to enhance the concreteness of its domain's individuals or items thus designated.

Moving away from reference and turning to considerations of truth in order to fill in with more substantive content Oakeshott's rather skeletal terminology of definition versus designation, we may employ the Tarskian theory of truth as an illustration (only) of what is needed here. Designating and significance (another of Oakeshott's repeatedly used terms) afford a way of constructing a self-contained world within each mode—without, that is, going outside it, which would be illegitimate given the autonomy of modes. Once the semantic conception of truth allows for the truthsatisfaction relation between levels (or languages), similarly each mode's domain does not encroach on any other's (no idea can serve two masters), or, more precisely, no statements true in one modal world should be made translatable into another if the former is to remain a coherent whole of true statements.¹³ This also confers substance on Oakeshott's antireduc-

tionist pronouncements. The truth conditions of each mode's language produced by the designating operation is determined by, and within, its own metalanguage-but ultimately, of course, in relation to philosophy. In particular, each branch of science, within the mode "science," may have its truth conditions determined only as long as we provide a suitably internal metalanguage, if its creative character is also to be preserved. Furthermore, unlike designating, which may be captured by philosophical semantics or linguistics (as above), Oakeshott's language in defining *defining* is clearly ontological, for in defining we seek "agreement or disagreement about the ultimate reason why some things are" what they are (Oakeshott 1933, 338) or, in terms of theories of truth, the "relation of judgment to reality" (p. 340). Definitions, being equivalent to philosophical knowledge as such, are called forth not in order to merely explain this or that particular modal world and its particular judgments but rather to define judging itself or modality itself. No amount of empirical data should affect the function of definitions. (I return to this when considering the case of the ethics of science—no amount of "moral data" should affect definitions in ethics.)

I want to connect the discussion so far with something I consider crucial, which for lack of a better word I have called Oakeshott's holism although it is not a single or systematically pursued thesis or explicitly formulated methodological rule of his. The kind of general antifoundationalism (consistent with neo-Hegelian idealism) that we encountered in the previous section combines with the holism adumbrated here.

First I want to gather together two strands that make up the prior stage of what can be called a holistic view of experience. These are Oakeshott's view of experience as all involving thinking together with what we have just seen in relation to designating. First, he advocates the view that all thinking forms a continuum, and thus we do not have to engage in flights of mystical intuition to find the allegedly real thinking (uncontaminated by sense experience). Despite the fact that in an act of judging an unavoidable split is introduced into the continuous whole of experience in the form of the duality of subject-predicate contained in the ideas employed in this operation, this is always a stage in what is still thinking; it is a necessary "deposit on the current of concrete experience" (1933, 24). It is a kind of sediment that, far from disrupting the continuity of the experiential whole, reminds us of its authentic status as a flow. This is the first Oakeshottian strand on the way to shaping the view of holism I ascribe to him. After that, we are told that logically itemized units of experience are nowhere to be found, either as the myth of the "immediately given" or as the "intuitive ineffable" of a hyperthought or as something devoid of signification: Unrelated atomic *individua* (mental or conceptual) are only the result of abstraction and analysis characterizing designation.

These two strands in Oakeshott's thinking—that in experience, thinking is seamless, not cut into sub- or suprajudgment, and that unrelatedness stems only from abstract designating-constitute a specific holistic view of experience. This holism is based on the omnipresence of thinking in all experience and on the network of relations that abstracted items of designation need in order to connect with each other. In its first aspect this is a holism based on the ontological indispensability (and priority) of thought; in its second aspect it is basically of a relational sort (1933, 28, 60, 63). (What particular kind of relational holism is pertinent here remains to be specified, and I do so in the next section.) This sort of relationism-"whatever is absolutely isolated and without relations must be devoid of significance" (1933, 28)-is, however, further connected to a third strand in Oakeshott's thought that we have already come across: that in completion brought upon a mode there is a movement from a state of "less of a thing" to one of "more of a thing" or from a given world to "more of a world" whereby "to enhance a world is to enhance its unity" (1933, 30). This view of holism is naturally combined further in Oakeshott's overall scheme with the notion of experience as a "system" permeated by a constantly intensified dynamic unity. (I return to this at the very end of the next section.)

Two corollaries follow from the strictures against the supposed immediacy of sensation and the ineffability of intuition, for science and religion, respectively. These are consistent with the various pronouncements on both of these subjects within *Experience and Its Modes*, thus drawing a consistent line of separation between science and religion. On the one hand, there is no prospect for a scientific mode built on the misconceived basis of supposedly immediate sense-data. This should remind us of the difficulty in categorizing Oakeshott as a positivist, as I have underlined from the start—assuming that we wish to line him up, wrongly, with early twentieth-century Carnapian attempts at a semantics permitting a reduction of either scientific language or laws to the foundational basis of observational language.¹⁴ Similarly, it appears as contrived when categorizing Oakeshott as on the side of those accepting knowledge of the know-how sort as a separate type in the face of certain of his pronouncements expressing clearly the view that there is only one kind of knowledge (1933, 50ff.).

On the other extreme, as a second corollary, there is no place for an analysis of religion as the privileged site of the mystical associated with intuitive "nonthinking." So the two sets of arguments against the wrong views of sensation and intuition set the stage for what not to expect in science and religion, respectively.¹⁵There is clearly a sort of intellectualist position here that bifurcates into a conceptualism as far as an analysis of mental content is concerned (1933, 51ff.) and a rejection of pre-predicative experience (1933, 54). Both of these are contested themes in modern philosophy, the former in the philosophy of science, the latter especially in the philosophy of mind.

SCIENCE

The "decision . . . to abandon the world of perception . . . is the Pisgah of scientific thought" (Oakeshott 1933, 170–71). Oakeshott makes this bold, yet basically judicious anti-Baconian,16 claim that accords well with his general epistemological stance presented so far. Science begins when natural history and (personal) perception end.¹⁷ Science has nothing to do with common sense, is impersonal and free of the "idiosyncrasies of particular observers" and "absolutely communicable," its master criterion being "stability" (quantitativeness and generality) (1933, 172, 176, 179, 215). Science understands things not in terms of their characteristics but in terms of their postulates (conditions) (1975, 9, 17 note 1). "Nature" itself is an abstraction and its uniformity a postulate (1933, 191, 193). Practical interests, that is, social interest in the applicability of scientific findings as everyday technological tools, are regarded as impediments to science construed as a theoretical endeavor (1933, 171; see also Oakeshott 1991, 506). From a certain point of view, this is one illustration of the narrowmindedness of Oakeshott, but it would be unfair to dismiss his views as not having foreseen recent developments in science and technology studies that bring to the surface the impact of technology on science. When he claims "stability" as the criterion of the special mode called science he also adds that it is wrong to consider "exactness" as the proper criterion of science (Oakeshott 1933, 224). He couples this with his injunction against allowing practicality to enter science. He underlines—in a manner prescient of future developments-that the scientific enterprise contains generalities, "analytical generalizations" (pp. 224, 182-83), the meaning of which is to be derived from neither the world of sense perception nor the mode of practical life (although he is not careful to spell these last nuances clearly). It links up with designation, and corroborates my reconstruction above, because it brings forth the basic idea that the analytical/conceptual networks generated by the abstractive operations of designation constitute a self-enclosed world made possible by abstraction plus external relations representing the world of a mode of experience, in this case science. It also brings Oakeshott closer to recent developments because, far from making him claim that technology has no epistemological bearing on scientific theory, it links him with the whole discussion in analytical philosophy and philosophy of science whereby underdetermination of theories by data, on the one hand, and indeterminacy of translation, on the other hand, have undermined the naive view of perception and its role as a basis of theory building or theory choice.

More important than unearthing similarities is locating Oakeshott in the intellectual topography spanning developments in epistemology and philosophy of science. His views may gain clarity while adding to the conceptual armory even by showing up errors of his own. In particular, I would

propose that tensions between Thomas Kuhn's position on lexicons, conceptual schemes, and world changes, contrasted with Donald Davidson's criticism on the unavailability of the very notion of wholly untranslatable conceptual schemes, may be alleviated by finding here additional means for pushing forward discussions that have reached a stalemate. I have in mind Kuhn's later position (1986; 1987) that tries to balance the non-total translatability between scientific lexicons wide apart from each other or within conceptual schemes separated by different worlds, on the one hand, with his insistence on the possibility of being a practicing historian of (past) science, on the other (actually doing the history of the "incommensurables"). Oakeshott's framework of insular modes plus the idea of designation may point to a possible solution or alternative viewpoint: By "becoming more of a world" (Oakeshott 1933, 184), each mode, and thus science, too, moves away from partiality or enclosedness and more toward being conceived from the standpoint of complete experience. In the gradual or bumpy process on its way toward that, we may recognize either a change of translation manuals or revolutionary gaps in the language of Kuhn, but certainly in Oakeshott's alternative outlook, which places science as one of the modes, its supersession by philosophical thinking cannot but happen in tandem with other modes, as one cannot be superseded without the rest being affected. This vindicates the earlier holism I read into Oakeshott and adds further support in favor of a Kuhnian anti-essentialist (but not relativist) understanding of nonrigid reference and truth being mediated by meaning variance. Consistent with my model of designating and defining expounded earlier, rigid designation, extensional definition (designating without meaning variance), and essentialism across all possible worlds are what get superseded by philosophy in Oakeshottian terms.

A further way we could elaborate this is by means of the dialectical union he recognizes between method and content that I emphasized above. These, being seen as clearly two aspects of the same thing, are as a unity more recognizable as such in science compared to other modes. But here the gains move in the opposite direction: Oakeshott's pronouncement stands to gain from recent sophisticated and detailed developments in this area.

Here is how I propose to read the Oakeshottian epistemological insularity of the modes together with their absorption or supersession by philosophy, and by doing so incorporate recent discussions in the philosophy of science and language. (1) Within each mode we may recognize the existence of *systematicity*, a specified conceptual scheme within which reference is determinate (keeping in mind that "system building" in Oakeshottian terms is equivalent to excluding or partiality). (2) But, seen from the viewpoint of philosophy representing the totality of concrete experience, each such conceptual scheme is partial because it necessarily excludes other modes. (3) Within each mode, however, we can say that from its own point of view we have rigid designations and taxonomies of natural kindsthat is, each mode is donning the mantle of essentialism; but this is nothing but a kind of pseudo-essentialism seen only from the internal standpoint of each mode, ignoring that other modes outside it are also competing for alternative views of the world. (In *On Human Conduct* Oakeshott has some rather terse but correct comments to make for social-scientific explanations usurping the explanation of actors trying to make sense of their actions and feelings.) So (4) only from the point of view of the totality of experience in the form of philosophy can we inspect each mode and discern its systematicity that the mode itself misses, being blind to its own particularity (system-building or conceptual scheme-building).

When he comes to the chapter given over to a description of scientific experience in Experience and Its Modes, as well as on a couple of occasions in the chapter on practice, Oakeshott makes explicit the way science should be kept separate from the other modes of experience. Science must be specially deemed irrelevant to practical life. But science also must be kept out of philosophy once the latter is understood as representing concrete reality, the concrete and complete vision of the whole without arrests or partial views. "The world of science and the world of reality are, as worlds, exclusive of one another" (Oakeshott 1933, 217). We have encountered this idea coming from the opposite direction, when using as a starting point the character of philosophy: Philosophy is not to be wrongly reduced to a stage of completion of (all) scientific investigation. Philosophy's task, rather, is to bring to the surface the concealed reference to reality that the scientific mode, like all other modes, contains, thus revealing its inadequate one-sidedness. Science cannot do this on its own; it cannot make explicit its partial character as an abstraction without thereby annulling itself qua science. This task necessarily falls upon philosophy. In which particular sense does science fall short of the total? What are its inadequacies to be revealed? These inadequacies are precisely its specific characteristics that distinguish this mode as one in which the totality of experience is conceived from the partial viewpoint sub specie quantitatis. Its own character is its defect; it cannot rectify it. Equally, on the other side, the world of total, concrete experience should not be expected to enter that of science without irrelevance, that is, enter into the mode of science while the latter retains its identity. Definition cannot turn into designating. Nor should philosophy be expected to wield a criterion assessing the relative adequacy of the scientific mode seen from within science itself, that is, as long as the criterion itself is downright scientific-"even the concrete totality of experience itself cannot compete with it upon its own ground" (Oakeshott 1933, 332).

I propose that respecting these strictures has important repercussions for the whole project. The repercussions have to do with the internal consistency of this way of laying down the identities of modes and, in particular, with the coherence of Oakeshott's position on science defended in *Experience and Its Modes.* Apart from the connection of religion with science we also must be wary of drawing lines of separation between science and other domains that are not themselves full-blown modes but rather subdomains of them or even what Oakeshott calls indeterminate arrests of experience. Such a case of a quasi-mode is that of ethics. It is important for at least two reasons. One is the obvious and rather topical reason that current advanced biotechnology posits pressing ethical challenges (I include visions of transhumanism here: human-machine interaction and the like as well as the more familiar environmental challenges or those stemming from the human genome project). The other reason is internal to Oakeshott's scheme of things whereby ethics is arranged in an especially distinct way as closer to philosophy than any other partial mode yet not entirely coterminous with true philosophy. Let me explain the latter before commenting on the missing relation between ethics *and* science.

Along with the ordinary determinate modes of experience having their homogeneous content made explicit, Oakeshott also recognizes (1933, 331ff.) what he calls indeterminate arrests of experience, that is, inadvertent abstractions falling short of the concrete totality, their abstraction and partiality being implicit, having no homogeneous content of their own. Full-blown modes, by contrast, are homogeneous, exhibiting determinate specificity, and thus may be said to be self-contained worlds in which designated specific "kinds" (of things, both natural and artifactual) are well arranged; a sort of essentialism, as we have seen, must be admitted within each mode seen from the inside-recalling, however, that the scaffolding behind this essentialism of sorts is always the operation of designating. Modes have what we may call "paradigm hardness." This is a conceptual rigidity due to the function of designation we encountered above. Modes safeguard the parenthood, we might say, of their own judgments, or of scientific propositions in the special case of scientific paradigms. By contrast, the indeterminate domains do not represent an explicitly formulated world of "kinds," a "paradigm" of coagulated content like the one the determinate modes enjoy. These indeterminate arrests lack an identity of their own and are thus easy victims, so to speak, for philosophy to "usurp" their domain, whereas in the case of the hardened, content-full modes, philosophical thinking must "break them down" first before it supersedes them. In usurping the indeterminate arrests, there is no need for, as Oakeshott says, a "revolutionary" passage from indeterminate abstract ideas to the concrete totality of experience, as presumably is the case when modal coagulated contents have to be broken down.¹⁸

Indeterminate abstract ideas, however, are not free-floating. They, too, belong somewhere, since for Oakeshott no idea is worldless, no idea is (as I would put it) orphaned; only some are mistakenly considered such. Because of their fluidity, indeterminate abstractions, although no less distant from concrete experience (that is, no less abstract than the standard modes), are essentially situated inside the very world of philosophy itself. They must be strictly categorized as pseudo-philosophical ideas because they fail to recognize their pedigree, namely, that they are "nothing if not philosophical" (1933, 333).

Curiously, then, there are vestiges of abstraction or modification somehow left within the world of philosophy. Perhaps they represent a greater danger if the error of letting such ideas carry on in disguise is deemed more pernicious than letting modes exist without trying to have them superseded. One classic case for such a quasi-mode is, for Oakeshott, ethical thinking, which he discusses in great detail. Two others not discussed, but mentioned in a footnote as on a par with moral philosophizing in this respect, are, revealingly, political philosophy and theology (strictly speaking he should mean philosophy of religion). These are all cases of philosophical thought being qualified and limited, and thus aberrations or betrayals. They are cases in which ideas that are in truth philosophical, and thus thoroughly outside the modal abstractions with which they are forced to cohabitate, are mistakenly thought not to be philosophical, thus opening the window for a pernicious connecting, of making philosophical thinking directly relevant as a guide to the modes-the classic anathema in Oakeshott's philosophy. The strategy therefore is to show that ethics is thoroughly philosophical, albeit only an indeterminate arrest. Oakeshott deals with this in terms of the more elementary relationship between ethics and the mode of practice.

Of interest here is his treatment of ethics in relation to the mode of science. Does the autonomy of the modes together with the thesis of the conceptual irrelevance of philosophy to each of the modes block any relation between ethics and science for his overall scheme? Obviously he has to prove that ethics is indeed a case of an indeterminate arrest—that is, that ethics cannot have the characteristics necessary and sufficient for being itself a mode of experience. Granted this, ethics must, *ex hypothesi*, be "nothing if not philosophical," but it also must be a cluster of what I have called orphaned or errant ideas awaiting their philosophical homecoming. Further, it has to be shown that this erroneous conception of ethics, construed as separate from philosophy, must have an explanation. Where does the misconception come from? Are other modes influencing it, sidetracking ethics from its true destination? Or is it the fault of philosophy for not rising to the occasion?

One subtle attempt Oakeshott discusses in order to dismiss it as an erroneous conception would be to secure the nonpractical character of ethics, that is, assign to it the task of formulating "ultimate definitions" of moral concepts rather than being the legislator of maxims of practical reasoning or rules of conduct, while at the same time retaining a connection with the mode of practical life from which the defined concepts and categories originate. This is suspect because of the foot in the world of practice, which violates the Oakeshottian principle of the separateness of modes. This attempt, however, tries to delineate a mode specially allocated to ethics. This gambit of isolating ethics away from its natural place, that is, philosophy, might further be secured by claiming that in this supposedly separate mode its basic concepts (moral terms) are either indefinable or intra-definable, thus meeting the condition of the separateness of modes. This supposedly new kind of mode would be internally "pure," given the unconnectedness of its concepts to anything outside it. But apart from the fact that this blocks any possibility of bringing ethics to bear upon any other mode given the *sui generis* character of its concepts (something that should please Oakeshott but for the wrong reasons), this move violates what I have claimed to be the backbone of the Oakeshottian scheme, namely the designation/definition thesis.

Here we get a clear taste of what I have claimed above, that this scheme is made to bear the whole metaphysical burden of the interconnectedness of concepts (from the point of view of philosophy superseding modal separateness) that Oakeshott subscribes to. In reply to this attempt to illicitly construct for ethics a mode of its own, Oakeshott accuses it of being misconceived on the grounds that the definitional purity of this quasi-mode has been secured by making it indefinable or intra-definable. Such a misconception stems from ignoring that, from the point of view of the totality of arrest-free concrete experience, no concept is unconnected and no judgment unrelated, implicitly or explicitly, to the totality of experience.

This is congruent with what I have said regarding the function of definition. In my reconstruction, this reply amounts to saying that, seen internally, each mode may enjoy its own set of intrinsic determinations accomplished by means of the operation of conceptual designation. This is only a conceptual unity that is satisfied with self-containment without full completion. The concepts generated by designation are abstracted unities needing to be related to each other within each mode via external relations. By contrast, full-blown, or "ultimate," definitions obtained from the standpoint of the totality of concrete experience represented by philosophical thinking, are such that no concept is left sui generis, no line of connection back to the totality is left untraveled. For Oakeshott designation must ultimately give way to definition; all concepts are in the end definable, in the strict Oakeshottian holistic sense. No concept is allowed by philosophy to remain separated, if and when philosophy attempts its superseding enterprise. We have seen from the start that each mode contains in itself its tendency to overstep itself or a latent and incomplete reference to the concrete totality of experience. The general Oakeshottian thesis that in the end "abstract concepts . . . have no power to resist the transforming force of the totality" is here duly reasserted (1933, 343).

Given this, what can we expect of the relation of ethics to science? Not much by way of routine and trite (un-Oakeshottian) attitudes that we are accustomed to—that is, a litany of good and bad things said of science and technology at the level of practical life. More important is to acknowledge the difficulty of saying anything at all from within the Oakeshottian scheme. If it is accepted that ethics is only an indeterminate arrest waiting to be reunited with philosophical thought, the latter having been deprived of a direct guiding influence exerted on practical life, then obviously if science is seen through its practical end there is no ethical-philosophical vocabulary that can carry out the job of criticism. Definitions must not be confused with designations, full satisfaction or coherence with only partial ones. In addition, designating internal to one mode can throw no lines of connecting significations reaching over to any other mode. So, either as philosophical thinking or as (falsely) a mode in its own right, ethics cannot be permitted to deal with science—and presumably religion cannot do so, either. Ethical ideas are doubly barred from entering science. In this sense it must be agreed that "applied ethics" is a misnomer.

But, inasmuch as ethics remains in the curious state of an indeterminate arrest, it does not suffer from any homogeneity or unbroken conceptual solidity characteristic of the bona fide modes; designating has not accomplished in full its hardened conceptual networks internal to each mode. So moral philosophy, or philosophy of religion for that matter, as long as they fail to be totally absorbed by philosophical thinking, as long as they are implicit modifications or incomplete designations, may be allowed to relate with the mode of science, consistent with the Oakeshottian strictures, on account of their fluid state. The schism between full designation and full definition does not apply here.

Needless to say, at this intermediary position the ethical language addressed to science falls short of the complete totality of experience, and in this respect it is not, strictly speaking, philosophical. Consequently there is no philosophical science any more than there is ethical science. There can be a philosophy *of* science only in the sense that philosophical thinking draws to itself the partiality of a mode of experience in order to supersede it. This means that we shall not expect a style of philosophical thinking that either (a) like the historical example of orthodox positivist philosophy of science legislates for science, if the latter is understood as a nonsuperseded mode of its own for which philosophy legislates *ab extra* as to its methodological rules (explanation/prediction, confirmation, models of "theory," theory choice, theory reduction, theoretical terms versus observational terms, and so on)—that is, logically reconstructs science as the logical positivists dreamed—or (b) legislates the ethical use of science. An example of the latter would be the case of "applied ethics."

By contrast, an illustration of the type of ethical engagement I consider consistent with, and thus permitted within, Oakeshott's scheme would be dealing with questions, for instance, of genetic engineering of human beings afforded by biotechnology while operating with a concept of personhood that is placed only within the domain of an indeterminate arrest, not within the hardened whole of a standard mode. Admittedly this is a far cry from a full ethical engagement in the form of legislating *to* science, but the example offers us a further view that may enrich the Oakeshottian picture. If to be fully consistent philosophy should effect its transforming of all partial views and concepts by absorbing them, if the totality of concrete experience expressed in philosophical thinking cannot be resisted, we must admit the prominent role assigned to metaphysics within this scheme. I mean by metaphysics ontological questions only.

One crucial contemporary development, both within philosophy and within some quarters of self-reflective science, concerns the legitimacy of transforming scientific realism into metaphysical realism—that is, moving from realism enclosed within and stemming from science to realism applied to metaphysics, but on the basis of the legitimacy of scientific realism. The resulting ontology (the ontological commitments forced upon us by embracing the transformation of scientific realism into a metaphysical realism) would be equivalent to admitting the inroad of the former into the latter. Ontological commitments resulting from self-reflective advanced science must pass on to philosophy. Philosophy must be permeated by results from science.

We need to carefully circumscribe the type of advanced science that interests us here. It should not be any odd branch. If certain demarcated results of a proper part of advanced science enter philosophy, we can no longer be confident with a conception of the latter as totally separate. Such a cohabitation would allow a contact point between ethics, itself an unacknowledged part of philosophy and thus virtually within it, and science. This reconstruction may worry Oakeshottian adherents, but I believe it is a welcome development that is also consistent with his overall scheme of modes. In addition, his "allowing the abstractness of the world of science to assert itself" (1933, 216) is nothing more really than the uncovering of science's ethical aspect, and this amounts to an alternative route toward a contact point between science and ethics.

As I mentioned at the end of the previous section, and as Oakeshott himself reminds us, no amount of "moral data," that is, empirical findings, should affect definitions in ethics. No scientific data should, either. A proposal like mine should not be reduced to ushering in such data. What I have in mind as permissible inroads have to do with areas of science akin to theoretical interpretations of quantum mechanics (in particular, cases like decoherence theories or nonlocality, empirically approached, that overturn a priori certainties, thus encroaching on philosophy). Nevertheless, we must raise the question as to what kinds of scientific developments (as theories, not "data") have repercussions for philosophy, and for which particular parts of the latter. As for scientific theories, there is a difference between advances in embryo biotechnology as compared to quantum interpretations, or theories in cosmology, the latter being more remote from, if not totally unrelated to, philosophical issues expected to be influenced by results in these sciences as far as ethical worries are concerned. With regard to the latter, that is, parts of philosophy affected, a philosophical branch such as that of aesthetics, for example, is clearly not affected in this way. A classic case in which the ideological implications of certain philosophical views about science were constantly hammered in was that of Otto Neurath's critiques of his fellow collaborators in the *Encyclopedia of Unified Science* project, especially Rudolf Carnap. This is an instructive historical episode. It is an illustration of science's being allowed to mingle with philosophy (and the latter in turn with politics).

So, furthermore, we must explore the possibility as to whether-given that within Oakeshott's scheme of modes there can easily be "history of science" but not "scientific (scientistic) history"-there must be a structure of modes whereby they are not all symmetrical and for what precise reason (for example, not both history of religion and religion of history). If we can entertain the possibility of a "philosophy of historicized science" we have the representative of concrete totality (philosophy) operating on two joint modes, history and science. If science is construed within a historical vacuum, that is, as only pure theory-this in fact being the actual historical episode of the official positivist philosophy of science exclusively preoccupied with the context of justification-the rich Oakeshottian overall view of modes and my reconstruction above reveal why such a philosophy of science has appeared artificial. If, however, science is construed in a more sophisticated way as being a dynamic combination of scientific practice and theory construction, the separation of the Oakeshottian modes of history and of science are not appropriate. Historicized science can be allowed even within his scheme. (The seeds of this enriched view of scientific activity now fashionable in many quarters is already in Oakeshott 1991, 505.) Then the ethical dimension both inside scientific practice and as an "orphaned" philosophical idea can assert itself allowing an ethical critique of science.

I therefore maintain that if we wish to check whether an ethics of science is allowed, consistent with Oakeshott's strictures on the separateness of modes, the issue necessarily involves the parallel question of what particular type of a philosophy of science can be congruent with it. The two puzzles must be solved together. If we carefully delineate the allowed combination of philosophy looking at science we can see how ethics can combine with science. In particular, understanding what Oakeshott attacks as naturalism when he engages in a philosophical discussion of science and its errors affords an entrance to ethics. In fact, his views on the matter are similar to Edmund Husserl's when the latter attacks naturalism in his famous *Krisis* (1965). Both philosophers have an identical argumentative strategy against naturalism as inherently a paradox, which in Oakeshott bifurcates also into an attack against the wrong type of social science. The starting point of both is the mind/body problem and whether mind, or intelligence, can be studied by empirical science subscribing only to materialism. The strategy shows the inescapable paradox contained within a naturalistic view that defeats itself by naturalizing consciousness. In more or less identical terms (Oakeshott 1933, 217 and passim; Oakeshott 1975, 21) both of them castigate the inherent circularity of naturalism's trying in vain to expel or naturalize human consciousness.

If, then, there is any hope for a substantive ethical criticism of science within the whole edifice of the Oakeshottian modes of experience, it must come from a parallel description of how philosophy must engage with science. It would be superficial to try to foster a link between ethics and science other than one legitimized from within Oakeshott's (Husserlian) attack on naturalism as inherently circular. If we wish to further trace the links here we have to bring in modern defenses of (versions of) such naturalism from current work in the philosophy of mind.

Alternatively, we can place the same idea within the Oakeshottian view of system as well as his thesis, encountered many times in this essay, about a world (mode) becoming *more of a world* by developing or continuously moving toward more degrees of unity or completion. Recall that for him a system, a dynamic whole as he terms it, structured throughout by "implication" relations (that he repeatedly emphasizes), demands completion. Can we say that ethics (but not religion) should be allowed to do this in the case of science? Ethical critique of science can be seen as a stage on the way toward more completion.

CONCLUSION

By means of this reconstructed view of Oakeshott I believe we gain a richer understanding of contemporary developments. Oakeshott's brand of holism can be further developed along Quine's more familiar terminology, and his antifoundationalism can be brought to bear on contemporary antireductionist moves in the natural sciences that eschew interreduction of branches of science. I have underlined the exalted position attributed to philosophy and have reconstructed it in a more elaborate way by means of its relation to modes and of each mode with the rest. But this special place reserved for philosophy (Oakeshott 1991, 491 notwithstanding) is to be seen, I hold, as defended by him via the modes, that is, in a much more complicated way than simplistic misunderstandings of Oakeshott's as a quasi-Burkean "anti-philosophy" stance would allow. For this reason I carve a place for ethics more sophisticated than a simple social critique of technology. Overall, the philosophical voice sets the tune. And this voice can best be heard in *Experience and Its Modes*.

I wish to enlarge this picture by bringing in two other pieces. If we take Oakeshott to hold, in a sort of one-dimensional manner, that science cannot play the role of metaphysics, we must concede that this idea is overturned nowadays by making scientific realism turn into metaphysical realism. But this is not the end of the matter. I propose that the whole Oakeshottian edifice of modes as partial points of view of the totality of experience, together with the core thesis of a world (mode) becoming "more of a world" in a continuous dynamic process toward (an unattainable) completion by intensifying degrees of such unicity, can be read by means of the Leibnizian metaphysics of increasing degrees of possibility and perfectibility. It is not merely that modes can be seen on the analogy of monads, although the two clearly are ontologically disparate. Rather, in Leibniz's language we have the tools already sharpened in concrete terminology that, if applied to Oakeshott's modal archipelago of windowless modes, will respond with more riches. For instance, to understand why Oakeshottian modes are not necessary we must deploy a Leibnizian standpoint.

I had occasion to stress the internal layout of modes via the operation of designation that requires, especially in the case of science, the admission of "natural kinds." This topic is attracting much renewed philosophical attention, in relation both to essentialism and rigid reference and to the by now questioned viability of such a naturalistic notion. It is not only (social) constructionism of scientific kinds that is upsetting received opinion but also more daring views embracing the notion of "worldmaking" (without necessarily inviting relativism) that also could be used to enrich Oakeshott's modal schema. His evocative description of "idiom" and "image making" (Oakeshott 1991, 496–97, 506) comes close to this and can be seen in relation to the notion of holism I delineate here. But in *On Human Conduct* and in the terminology of "ideal characters" we have clear echoes of a terminology of kinds that is now under attack (see Hacking 1991; 2007).

The difficulty of securing a clear-cut place for an ethics of science, and the reason I chose to dwell on it, apart from the intrinsic interest it has for modal separateness, bring to the surface the elevated place reserved for philosophy as symbolizing unconditionality or presuppositionless thinking. Either as a mode in Experience and Its Modes or as a "voice" with its own images and "idiom" in conversation with other voices as in "The Voice of Poetry" ([1959] 1991), or as an "idiom of inquiry" (1975, 16–17), or a "platform of conditional understanding" (p. 6), science shares with all such modes, voices, and conditioned inquiries the characteristic of producing its own images or concepts, "designating and making intelligible a categorically unambiguous identity" of its own (1975, 18), thus explaining its self-enclosure and at the same time its falling short of a contemplative idiom, of a religion and of philosophy. In all three versions—mode, voice, categorical inquiry-we encounter the same principal idea of inescapable conditionality. If philosophy and science do not mix, in the sense of On Human Conduct, whereby you cannot both interrogate (ethically and

epistemologically) and use science as an instrument of understanding (Oakeshott 1975, 25), then recognition of the conditionality on which the scientific enterprise rests is the end of the matter.

However, to be aware of its conditionality, I maintain, can be seen as the ethical element-or critical interrogation-of science in the sense of a critique to naturalism. Recognition of conditionality leaves open a possible channel connecting ethics and science when officially modal interconnection in general is denied in Experience and Its Modes, heavily curtailed as only a conversation in "The Voice," and again blocked in On Human Conduct. So officially (1) epistemically all channelling of such a connection is blocked in Experience and Its Modes, or (2) it is loosely allowed only conversationally, that is, as voices exchanging ideas but never being turned into each other (that is, remaining distinct idioms always), and finally (3) in On Human Conduct all communication between inquiries is blocked categorically in terms of distinct sets of ideal characters and conditionality. Given such variations on blocking-epistemic, conversational, and metaphysical-the only possibility for science to be ethically interrogated is, indirectly, to the extent that it recognizes nothing more than the lurking unconditionality toward which it must not and cannot rush. It should not expect to reach that "heavenly home" of religion or ethics.

NOTES

I would like to thank Leslie Marsh for his help and patience.

1. This type of pragmatism is *not* what Oakeshott means by "voices" in a conversation or, more generally, what he wishes to convey by his terminology of "modes" of experience.

2. Leslie Marsh (2005) brings out such ambiguities by providing a refreshing reading of the gamut of the many possible, not always harmonized, Oakeshotts.

3. Oakeshott here borrows the machinery and even the terminology of F. H. Bradley's ([1893] 1978, XV) analysis of *this* and *what* and of predication.

4. What I call philosophy as animator captures the general Oakeshottian injunction that it is wrong to assert the possibility of something within human cognitive activity (for example, consciousness of values or direct experience by means of raw sense-data) as "immediate, absolute, underivable and indefinable" because "No experience whatever is isolated, immediate or inexplicable" (Oakeshott 1933, 277). Here we encounter his emphasis on *definition* contrasted to the mere *designation* that modes can accomplish—as I explore below in some detail.

5. It is instructive to remember that a parallel idea encountered in *Experience and Its Modes* was one of his earliest and more or less complete treatments of religious experience (note: religious *experience*, not theology or ecclesiastical canon) construed as a culmination of practical life at its most intense. The themes of intensity, of designation being supplanted by definition, the world becoming "more of a world," and other such metaphysical theses central to his philosophy of modes must not be left unrelated to that of religious experience. (See last section.)

6. Forty years later a similar idea from a different philosophical standpoint was pressed home by Martin Heidegger's repeatedly stressing that the essence of technology is not technological. The only difference between them is that Heidegger had at his disposal the conceptual means to allow a treatment of technology by ethics as well as an optimistic vision of technology and science containing in itself a solution to its dangers, and both of these would be ideas foreign to Oakeshott's thinking. (See Kaldis 2008.)

7. We encounter the same idea below in a different format: In "defining" a concept, its concealed reference to reality is brought to surface, its implicit relation to the totality of experience made explicit. So when it is said that a mode of experience is not merely a mode but that it exhibits the tendency to overstep itself, this amounts to saying, in my reconstruction, that its

concepts are open (natural resistance notwithstanding) to receiving the definitional treatment expected from philosophy that would exhume its hidden reference(s) to the totality of experience.

8. Repudiating the independent ontic existence of external relations as totally separate from their relata and accepting relations positioned only in relation to the whole comes from Bradley ([1893] 1978, 125–26, 347, 409). With the help of Bradley's "What we discover rather is a whole in which distinctions can be made, but in which divisions do not exist" (p. 128), the parallel to be traced in Oakeshott is to assert that designation necessarily imposes analytical divisions (in experience or within a mode) which are erased by definition. As I indicate with my parentheses in the text (see note 12), a full reconstruction of all this would incorporate talk of extensional idioms.

9. A scientific example of this could be biological taxonomies by means of relations of classinclusion based on an isolated element chosen for this end, such as Carl Linnaeus's taxonomy based on sex organs and reproduction, as opposed to the richer Aristotelian nonsystemic "taxonomy" whereby morphological, ethological, and other elements are combined as criteria for speciation.

10. In explaining the dynamic unity of the world of experience as a system that constantly develops by continuously intensifying its degrees of such a type of unity ("becoming more of a world"), Oakeshott stresses three abstractions that must be kept apart from his notion of systemic unity. All three involve an element being abstracted and made into the focal point of this false unity: the element of class or kind, the element of essence, and the element of principle. In the first case, what we would call relations of class inclusion or taxonomy denote precisely relations of designation as I understand them, whereby "collection" and "conglomeration" correspond to what I call aggregative networks. Notice also that "kinds" are naturally placed as types of abstractions of the first instance, and so are bona fide inhabitants of a mode such as science, corroborating what I have said in the text.

11. This is analogous to theories' total transformation as opposed to partial corrections enabling the successor theory to absorb the reduced one, as in the case of Galileo's law of motion slightly modified to fit Newtonian mechanics or, similarly, with Kepler's third law, or, with more difficulty, as in the case of trying to fit Newtonian theory to Einstein by means of tampering with the speed of light.

12. Although I do not pursue this here, the kind of reference that would best suit the Oakeshottian distinction between designating and defining (see note 8) is that of what has come to be known as rigid designators in the Kripke-Putnam causal-historical theory of reference (of natural kind terms) as long as this theory of reference applies to designating.

13. In several places Oakeshott explicitly espouses, as he should, a version of the coherence theory of truth (1933, 34, 37, 49, 57–58, 199). Different degrees of achieving coherence correspond to different modes.

14. The caricature of a one-type positivism or logical positivism with which we are accustomed is, thankfully, beginning to crumble: Even within logical positivism itself and between it and post–World War II adherents there are significant differences. Even before, Moritz Schlick, while still fulminating against metaphysics, had a very delicate view on realism that distinguished him from run-of-the-mill antimetaphysical positivism. Realism, he thought, should not be repudiated out of hand by what he called "consistent empiricism."

15. Oakeshott's views on religion are important and complex or multifarious, some depending on the time of composition of the essay in which they appear. Lest I seem not to correctly represent Oakeshott's views on religion, I wish to state that my corollary above is situated within an analysis of *Experience and Its Modes* only. I deal with some aspects of religion in Oakeshott in "Religion and Art: Modal Formalism and Political Antinomies" (Kaldis in press), where I stress the centrality of *presentness* and *timelessness* as crucial to understanding the nonpractical modes of religion and aesthetics in his thought. So, to balance what I have stated above, I add that, viewed in the light of some of his other writings (especially *On Human Conduct*), religion is said to be a deliverance from the "deadliness of doing," or, in my own interpretation offered in that paper, a matter of what he calls "self-enactment" and of faith, not one of joining an organized religious community. In the case of religion, absence of reflective "theorems" and rational understanding amounts to mystical experience and timelessness (as expounded in *On Human Conduct*).

16. I mean not Francis Bacon himself, who had a rather more sophisticated attitude toward empirical induction that usual textbook caricatures misrepresent, but what has become the standard rubric without historical accuracy.

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17. The thesis about personal perception is not as innocuous as it sounds. Within the type of philosophy of science generated by Thomas Kuhn and within the Quine-Davidson combined scheme of understanding as translatability introduced into philosophy over the past decades it is important to be clear whether a mind-independent reality, should it exist, must be conceptualized in its antithesis to a (single?) mind. The latter therefore must be specified as either that of an individual or that of a whole linguistic, epistemic, or social community. The latter difference is crucial (see Oakeshott 1991, 507).

18. Compare what we said above regarding the continuum between designation and definition. Either Oakeshott is inconsistent in setting up his distinctions, or we may prefer to follow a different tack: "paradigm shifts" or "breaks," if admitted as analogous to his talk of a "revolutionary" abolishing of abstractions when modes are superseded by the concrete totality of experience, must be repositioned. We must retain the terminology of abrupt "breaks" for the overcoming of the partitioning barriers between modes rather than for the overcoming of the abstract by the concrete; the latter involves a smooth continuity from designating to defining concepts. Thus science may be construed as forming a closed paradigm of its own seen from the point of view of other modes, while internally its conceptual network produced by the operation of semantic designation forms a smooth continuum of concepts or whole theories (although here we have to decide what to do with the issue of the reductionism of scientific theories). From the standpoint of the concrete totality of experience, though, this interlocking of scientific *designata* within the mode called science enables philosophy to draw lines of defining the concrete totality of experience. Philosophy, I would put it, is in this sense a *pase-partout*.

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