

Remarks on Knowledge

A Key Factor in Modernity

Among the many factors shaping modern thought, one of the more significant has been the emergence of modern natural science and of modern history. Indeed according to the Christian historian, Herbert Butterfield, the so-called 'scientific revolution' of the sixteenth and seventeenth centuries

- (1) overturned the authority in science not only of the middle ages but also of the ancient world,
- (2) outshines everything since the rise of Christianity, and
- (3) reduces the Renaissance and the Reformation to the rank of mere episodes, mere internal displacements, within the system of medieval Christendom.

The Conflict of Science and Religion

The new science and ^{the new} history have been the source of new knowledge in quite different areas: in the material realm of physics and chemistry, of geology and astronomy; in the biological realm of plant and animal life; in the human realm of the Geisteswissenschaften, of interpretative and historical studies.

In each of these realms the new knowledge conflicted or was alleged to conflict with Christian truth: witness Galileo, Darwin, the Higher Criticism in scripture studies.

While it is true that these real or supposed conflicts, especially since the Second Vatican Council, are largely matters of the past, it remains that conflicts between objects of faith and objects of science have never been more than a minor aspect of the matter.

The profoundly significant fact is that modern science and modern history constitute new data on what human knowledge is. In other words, prior to the emergence of modern science and, again, prior to the emergence of modern history, accounts of human knowledge inevitably suffered from a lack of precision and clarity that no longer is acceptable. Moreover, this lack of precision and clarity made it all too easy for partial and even mistaken accounts of human knowledge to be proposed confidently and to be accepted as almost self-evident.

The Complexity of the Issue: A First Aspect

Albert Einstein is reported to have advised cognitional theorists to pay no attention to what scientists say but to watch closely just what they do. Einstein's distinction is the old Scholastic distinction between signate and exercite, a distinction that has been taken over today by the phenomenologists who contrast le thématique and le vécu. Scientists know exercite what science is; they can do science and, when doing it, know precisely what they are about. Scientists do not know signate what science is; they cannot give a precise and satisfactory account of what science is; for science is a branch of human knowledge; and a precise and satisfactory account of what one is doing when one is knowing is a rare and quite philosophic achievement.

The Complexity of the Issue: A Second Aspect

A second aspect of the matter is that the distinctive characteristics of the new knowledge only gradually came to light. Let me illustrate the matter as briefly as possible.

First, the new knowledge was empirical. In his Posterior Analytics Aristotle had expressed his ideal of science in terms of his sylogismus faciens scire (sullogismos epistōmonikos). The Royal Society in England expressed its contrary ideal in the rule that it considered only questions that could be resolved by an appeal to the data of observation or of experiment.

Secondly, the new knowledge was autonomous. For Aristotle other sciences were to be subalternated to metaphysics and so they were to draw their most basic principles and the nucleus of their basic terms from metaphysics. In contrast the new knowledge derived its basic principles and the nucleus of its basic terms from what Galileo named the mathematization of nature (what he had in mind was the geometrization of nature).

Thirdly, for Aristotle scientific knowledge was knowledge of essential predicates, and predicates were essential to subjects when they pertained to them universally, necessarily, and eternally. In contrast, the new scientific knowledge consisted in empirically established correlations.

Fourthly, for the Aristotelians scientific knowledge was necessary and certain. For a very notable period this also was the accepted view of the new knowledge. But Bolyai, Lobatchevski, and Riemann disposed of the alleged unicity of Euclidean geometry. Einstein disposed of the uniqueness of Newtonian mechanics. Heisenberg's indeterminacy disposed of Laplace's contention that in principle it was possible to deduce the state of the universe at any past or future time from adequate knowledge of its present state.

Hence, so far from being necessary and certain, the new knowledge is hypothetical: it is ever open to revision and so its positive content is never more than the best available

opinion.

Again, where Aristotle conceived understanding as a matter of knowing the cause, knowing that it is the cause, and knowing that the effect cannot be other than it is (Post. An., I, 2 71^b9ff), the intelligibility grasped by modern understanding is not necessity but only a possibility that happens to be verified. Indeed, were it necessary, verification would be superfluous, and science would be not a posteriori and empirical but a priori.

Fifthly, statistical thinking had long been familiar in thermodynamics and in chemistry. But it had been regarded as no more than a pis aller, as a cloak for our ignorance of exact process where large numbers of entities were involved. So even Einstein clung to this view in his opposition to quantum theory, an opposition he expressed theologically as his rejection of a God with a dice box.

It remains that statistical laws have become basic in physics. They have transformed Darwin's chance variations into probabilities of emergence and his survival of the fittest into probabilities of survival. They admit theoretical validation by a distinction between the ideal frequency (i. e., the probability) and any particular departure from the ideal frequency, which may be named, from that viewpoint, chance.

Sixthly, a similar development in the apprehension of the new knowledge may be noted in historical work. Leopold von Ranke proclaimed it the historian's task not to pass moral judgements on the past but simply to narrate wie es eigentlich gewesen. Positivists interpreted this to mean their customary confusion of data and facts - a confusion enshrined in the well-known Introduction aux études historiques published by Langlois and Seignobos in 1898. Twentieth-century historians

(Karl Heussi, Henri-Irenée Marrou, R. G. Collingwood, Carl Becker) have labored constructively against positivist misconceptions of history.

Transition to the Third Aspect.

A first aspect was the inarticulateness of scientists: they knew exercite but not signate what the new knowledge was.

A second aspect was the incompleteness of the data. Newton was thought to have done for mechanics what Euclid had done for geometry. But the notion that Euclid had deduced necessary conclusions from necessary and self-evident premises had to be dispelled. The notion that Newton had succeeded where Euclid had failed had to be exploded. Minkowski's interpretation of Einstein's special relativity as a four-dimensional space-time manifold was long regarded as incomprehensible. Heisenberg's indeterminacy was incredible to Einstein.

And please note: the novelty was nothing so simple as the abstruseness of n-dimensional curved space or of matrices. It has been said that had Carl Becker published his paper on historical facts when he wrote and read it in 1926, the disarray of historians would have equalled that of the physicists. The new knowledge all along has been new.

Now the third aspect arises, naturally if not logically, from the conjunction of the first and the second. The inarticulateness of the scientists and the incompleteness of the data provide a vast and enticing field for speculation. The general name for the speculation has been Das Erkenntnisproblem. If the new knowledge is new, then the old must be inadequate if not mistaken. If the old knowledge must be inadequate if not mistaken, the old view of reality must be inadequate if not mistaken. What then is knowledge? What is meant by reality?

grief when Kant's Critique of Pure Reason sought a middle way between the a priori claims of rationalist thought and, on the other hand, the destruction of the new knowledge itself by Hume's empiricism.

In time, however, the new knowledge itself proved unfavorable to Kant's synthetic a priori propositions. Were scientific propositions truly universal, there could not exist the contrary instances that disproved their universality and forced the ongoing advance of science. If the laws of nature had the necessity that precluded miracles, they would not be intrinsically hypothetical and in need of verification.

While the slow and gradual advance of science was to undermine Kantian speculation, the absolute idealists were at once too brilliant and too impatient to await the course of events. Theirs was the at once radical and reactionary step of restoring the supremacy of speculative reason. They can be excused since the new knowledge had not as yet revealed fully its nature and implications. They can hardly be followed for their gift did not include the power of foreseeing what the new knowledge was to be.

The Complexity of the Issue: A Fourth Aspect

Subsequent philosophy is marked by a shift from a concern with science to a concern with man. Schopenhauer wrote on Die Welt als Wille und Vorstellung. Kierkegaard stressed faith, and Newman conscience. Dilthey hoped for a Lebensphilosophie, Nietzsche had much to say about power, while James, Peirce, and Dewey emphasized results. Blondel wanted a philosophy of action, and Ricoeur has not yet completed his philosophy of will.

Such names serve to illustrate the new style of the anthropological turn (die anthropologische Wende). There had been an old style, but its inspiration was nascent modern science, and its aim was to set up a Grund- und Gesamtwissenschaft on the basis of the data of consciousness. It goes back at least to Descartes. But its ambition was blocked by Kant and overleaped by the absolute idealists. The new style of the anthropological turn is closely related, not to the natural sciences which it is prone to despise, but to interpretative and historical studies. It seeks mainly the foundations not of all knowledge but of human studies of human affairs. Its principal achievement has been the reconciliation of the conative-emotive and of the cognitive components in man's make-up, and this has been brought about by placing and including both within the higher synthesis effected by the deliberative, evaluative, and determinative activities of responsible freedom. Accordingly, it reveals a deep affinity with the tendencies of Christian thinkers such as Augustine, Pascal, Newman, while it is apt to be allergic to the intellectualism associated with Aristotle and Aquinas.

A most notable development has been Hans-Georg Gadamer's extension and application of a lead found in Martin Heidegger. For in the finitude of Dasein Gadamer has seen that the Geisteswissenschaften can be cultivated only if one is the heir to a cultural tradition, that immersion in the tradition is the condition of the possibility of assimilating, developing, or criticizing it, and consequently that the Voraussetzungslosigkeit demanded by the eighteenth-century Enlightenment was a blunder of the first magnitude.

While Gadamer's rehabilitation of tradition is also a rehabilitation of belief and so^{is} intimately connected with a rehabilitation of theism, it remains that the native locus of his thought lies in the new style of the anthropological turn. It is an unfortunate fact that this new style itself is more readily exploited against Catholic tradition than adapted to meeting its needs. To this we now must advert.

The Complexity of the Issue: A Fifth Aspect

The anthropological turn is a turn away from an earlier cosmological approach that thought in terms of objective reality, the universe, beings. In effect it is a turn away from the^{ecclesiastical} style that is found incipiently in the trinitarian and christological thought of the patristic period and especially of the Greek conciliar decrees. This style expanded into a systematic vision when the Scholastics adopted and adapted Aristotle to promote the consistency of their efforts to reconcile and unify the multitudinous elements of the Christian tradition. In the modern period it has been attacked cumulatively from the standpoints of almost every new development: Protestant interiority; advancing natural science; critical history; the old and the new anthropological turn; the revolutionary ideologies. In a variety of manners it stood its ground up to the second Vatican council. Since then it has been seriously eroded, grown silent or been deserted, even been openly attacked in a radical fashion by Catholic thinkers who question the oldest doctrines of the faith and propose not merely new formulations but substantial alterations of their content.

Some Negative Conclusions

On the basis of the foregoing clarifications it seems possible to list some negative conclusions.

First, one cannot be content with the so-called cosmological approach in its pre-Cartesian form. For it was essentially metaphysical, its metaphysics were riddled with disputed questions, and its precritical procedures were unequal to putting an end to the disputes.

Secondly, one cannot be satisfied with the anthropological approach in its old style as exhibited from Descartes to Hegel. For during that period modern science and modern history had not yet adequately manifested the new data on human knowledge; and as these new data have gradually come to light, the old style of the anthropological turn has more and more been abandoned. A critically grounded philosophy cannot be raised on a mistaken account of human knowledge.

Thirdly, one cannot remain within the limitations of the new style of the anthropological turn. For it tends to be purely anthropological: to be content with the common sense of its own country, province, town and, from that basis, to carry on interpretative and historical studies of the contrasting varieties of common sense to be discerned in other towns, provinces, countries, ages. Not only does it ignore the achievements of modern science but it is prone to take over positivist accounts of the nature of modern science and to mistake a critique of such positivism for a critique of science. Finally, as a scientific view of the universe is ignored, so a philosophic view of the universe is precluded. The result has been not only atheism and agnosticism but also a fascination with anthropomorphic conceptions of God and an

itch to revise the formulations and change the content of traditional Christian confessions of faith.

Positive Options

An organized, large-scale attempt to combat atheism and/or unbelief calls for certain positive options on knowledge. It calls for these options not indeed in those that are to be converted, not in the majority of those that are to do the converting, but in those that will have to make theoretical decisions in planning and directing operations.

In brief, not all believers need to know, but among believers it is highly desirable that some have some knowledge. Even if no attempt is made to prove the existence of God, still among the many conceptions of God some are to be preferred to others. Even if unbelief is to be overcome by belief, still some knowledge is needed of the relationship of bel^e_^if to knowledge.

Six options are indicated. The indications are mere pointers. To grasp them and their import one must go to fuller sources.

1. Tradition and Innovation

Not innovation without tradition. Medieval Scholasticism was the sustained and systematic attempt to integrate the dogmas of the faith with a human culture. Whatever its defects, ^e_^there remains some good that is to be salvaged.

Not tradition without innovation. For the medieval achievement was precritical. It was quite unaware of the data on human knowledge to be provided by modern science and by modern history. At least these defects have to be remedied.

In the present writer's opinion, ^{ancient} / tradition and ^{modern} / innovation may be combined by taking the following steps:

- (1) by discerning the genius in the Aristotelian corpus, i. e., the author of books Z, H, Θ of the Metaphysics, the author of books B and Γ of the De Anima,
- (2) by setting aside the blunder of the Posterior Analytics I, 2, on the certainty and necessity of scientific knowledge and giving a modern interpretation to Posterior Analytics II, 19 on the nature of discovery,
- (3) by observing the interdependence of (a) matter and form and (b) insight into phantasm, and the isomorphism of these with the modern conjunction of observation/experiment and discovery, aliter of experience and understanding,
- (4) by adding to the ancient and modern grasp of the first two levels of human knowledge Christian emphasis on the third level exhibited in the apostolic preaching of the gospel as true; traditional and conciliar insistence on what is to be said and what is not to be said; Augustinian insistence on veritas; Thomist insistence on esse; Newman on the unconditional character of assent,
- (5) by noting the parallel between this Christian contribution and the modern scientific insistence on verification,
- (6) by liberating the foregoing kernel on knowledge/reality from the endless incrustations and distortions contributed by simplifiers and vulgarisateurs from Isocrates and Cicero down to the still lingering remnants of classicist culture.

2. Critical

A basic step in achieving this and other liberations is the critical approach that consists simply and solely in exploiting the reciprocity of cognitional acts and cognitional objects.

Such reciprocity is exploited inasmuch as there is excluded talk about cognitional activities without reference to their corresponding objects and, vice versa, talk about objects without reference to their corresponding cognitional activities.

More generally, one will acknowledge the interdependence of (1) cognitional acts, (2) cognitional theories, (3) epistemologies, and (4) metaphysical systems.

Such interdependence runs in two opposite directions.

There is the order of logical priority. For logic deals only with objects, and it has to treat the more general before it treats the less general. So from a logical viewpoint one begins from one's metaphysical system, accounts for the possibility of knowing it by an epistemology, grounds the epistemology in a cognitional theory, and justifies the cognitional theory by an appeal to cognitional fact. In contrast, from the viewpoint of an investigator or a teacher concern centers on matters of fact. Then one begins by drawing attention to cognitional events and processes, advances to a cognitional theory, goes on to establish an epistemology, and concludes from the cognitional theory and epistemology to the metaphysical system.

However, if one's aim is the sophist's goal of confusion and obstruction, then one will assume that the teacher or investigator is writing an abstract treatise that proceeds from the more general to the less general and, vice versa, one will argue that a logically ordered treatise disregards the most obvious precepts both of empirical and of pedagogical method.

3. Discursive and Constructive

Human cognitional activity is discursive, overtly inasmuch as it proceeds by question and answer, really inasmuch as questions for intelligence, questions for reflection, questions for deliberation, express the dynamism of the human spirit as it promotes the subject from experiencing to understanding, then from understanding and its formulation in concepts and words through relection to weighing the evidence and judgement, from judgements of fact, possibility, probability through deliberation to evaluation, decision, action.

From the successive levels and promotions follows the constructive character of human adult knowing. The data of sense and of consciousness are presupposed and complemented by understanding. The intelligibilities grasped by insight are presupposed and complemented by formulations and judgements. The truths attained by judgment and the realities thereby known are presupposed and complemented by the evaluations and decisions of responsible freedom.

The constructive character of adult human knowing entails the conclusion that the successive elements in cognitional process are not so many instances of adult human knowing but only partial constituents and components within a single instance of adult human knowing. If the Thomist analogy is helpful, then one may note that just as matter, form, and existence are not three things but merely three components within the reality of a single thing, so too experiencing, understanding, and judging are not three instances of adult human knowing but merely three components within a single instance of adult human knowing.

I have spoken repeatedly of adult human knowing because the discursive character of adult knowing involves speech while infants, by definition, do not speak. Moreover, while a great deal of effort and attention is involved in learning to talk, to talk intelligibly, to talk correctly, relevantly, interestingly, still this process as it occurs is conscious but not known, vécu but not thématique, familiar exercice but not formulated signate. Accordingly, it involves no advertence to the differences

- (1) between the infant's world of immediacy and the adult's world mediated by meaning and motivated by values,
- (2) between the minimal role of understanding and judgement in the infant's knowledge and the maximal role in adult knowledge,
- (3) between the criteria invoked by the infant in cognitional operations and the criteria that may and should be invoked by the adult.

Such inadvertence, finally, offers a simple and convincing explanation of the prevalence among even critical philosophers of various aspects of naive realism, that is, of the tendency to assume that the data of sense and of consciousness are not just data but instances of knowing, perceiving, apprehending, intuiting, or again to contend that such intuitions reveal not things themselves but only phenomena, or to infer that the activities of human understanding reveal not a real world but only a phenomenal manifold, and so on.

4. Transcendental

Different departments of human knowing follow different styles. There is the deductivist style cultivated by mathematicians. There is the open style of modern empirical science in which current theories are ever open to revision. There is the transcendental style proper to philosophy.

The philosophic procedure may be negative or positive. The negative procedure reveals the adversary to be involved in contradiction: it may be as simple as the Aristotelian precept of getting the sceptic to talk, or as refined as Emerich Coreth's conflict between Begriff and Vollzug. The positive procedure is to retain the openness to revision of modern science in all respects except one: the possibility of revision has to remain permanent.

Clearly the positive transcendental style is relevant to discursive and constructive knowledge. For its structure is by identity both the structure of modern empirical science and the structure of the revision of modern scientific theories. In both cases new data come to light, they give rise to a fuller and more accurate understanding, and the fuller and more accurate understanding generates a revision judged more acceptable than its predecessor. As in science, so also in revision the process is a combination of experiencing, understanding, and judging. Accordingly, the permanent possibility of revision makes any revision possible except a radical revision on the process of knowing by experiencing, understanding, and judging.

5. Methodical

By a method I understand a normative pattern of recurrent and related operations that lead to cumulative and progressive results.

Method includes logic (operations on terms and propositions) but adds further non-logical operations such as observation, description, questioning, discovery, hypothesis, experimentation, revision, systematization, etc.

A methodical approach differs from the Aristotelian and the Hegelian. The Aristotelian ideal of science was basically logical. It envisaged a hierarchy of material objects; the respective universal, necessary, and eternal predicates by which material became formal objects; the subalternation that transferred terms and principles from the more general to the less.

Hegel sought to break away from the abstractness, the immobility, the remoteness of the Aristotelian ideal. But where he offered a finished system of the universe, the methodical approach offers no more than the heuristic structure of open and ongoing inquiry and investigation.

In this heuristic structure the basic distinction is between the categorial methods adapted to particular fields (physics, chemistry, biology, sense life, intelligent life....) and the transcendental method based on the more general structure of all human cognitional procedures and providing the inner core of the categorial methods.

Such a transcendental method is philosophy in the sense of 'philosophy of....' It unifies and relates ^{not only} all disciplines but also all forms of human living (common sense, art and literature, religion, technology, human society).

6. Existential

By 'sublation' I understand the introduction of a new principle, new operations, a new goal that go beyond previous operations, preserve them in their integrity, integrate them within a higher and fuller process, extend enormously their significance and relevance.

In this sense intelligence sublates the data of external (sensitive) and internal (conscious) experience: it unifies them and relates them, constructs and extrapolates, serializes and generalizes; and thereby it transforms an individual's minute experience of a strip of space-time into an apprehension of the cosmos.

In turn, the demand for sufficient reason sublates experience and intelligence. Thereby the given and the apparently understood are subsumed under the true and false, the real and the fanciful.

Thirdly, the question for moral deliberation sublates experience, understanding, factual judgement. From asking what is so, man is advanced to asking what am I to do about it, even to asking what am I to do about myself. Moreover, while intelligent inquiry and rational reflection promote a withdrawal from self-centered feelings and a movement towards detached objectivity, practical and moral issues effect a reintegration that enlists the power and drive of feelings in the service of the human good.

The whole is a process of self-transcendence from the immanence of sense and consciousness through the reach of inquiry, the balance of rationality, the pursuit of the truly good. Still it is self-transcendence in potency and in process. Self-transcendence in act is falling in love:

domestic love in the family; human love striving for the well-being of the clan, the region, the nation, the race; the love of God flooding our hearts through the Holy Spirit given to us (Rom 5, 5).

Because self-transcending is free, man can be authentic or unauthentic: authentic if he is attentive, intelligent, reasonable, responsible, in love; unauthentic in the measure of his inattention, obscurantism, bias, wilfulness, hatreds.

The attainment of self-transcendence is the fruit of development, and development is twofold. It is from below upwards: from ever wider and more varied experience, through the cumulative process in which insights complement, qualify, correct one another, formulations give rise to further questions, the pressure of evidence dismisses error and confirms^s truth, to the controlling influence of practical, interpersonal, and existential concern with what truly is good. But development also is from around inwards and from above downwards: it is from around inwards inasmuch as our feelings spontaneously relate us to others about us and carry us along in common enterprises and common courses of action; it is from above downwards inasmuch as we have fallen in love, undergo a transvaluation of values, find in all our living a new first principle supremely powerful within us and over all against us.

To over-emphasize either of these two aspects of human development leads to distortion. The distortion resulting from individualism comes from stressing development from below upwards and neglecting development from around inwards and from above downwards. The opposite, collectivist distortion neglects development from below upwards, stresses human solid-

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Note the distinction (Insight, pp. 304-9) between analytic propositions, which are grounded simply in the definitions of terms, and analytic principles, in which the terms in their ~~defined sense have been verified~~. Thus, if the basic terms of mechanics or electromagnetics are defined implicitly by their meaning in empirically established laws ~~defined sense have been verified~~, Such verification ^{may be} coincident with definition, e. g., in the basic terms of mechanics defined implicitly by the verified laws of mechanics.

The known invariant structure of methodical operations would seem to increase ~~increases~~ with the complexity and detail of attempted revisions that fail to satisfy the conditions of the possibility of revision.

It is not to be assumed that this invariant structure is as jejune as the triad: experience, understanding, judging. Indeed, the fuller the account of the structure of methodical operations, the more elaborate will be any attempted revision. If the revision is successful, it will call for a still greater elaborateness in the next attempt at revision. If the ~~revisi~~ revision fails because it does not provide for the possibility of further revision, then the known conditions for the possibility of ~~in~~ revision increase.

arity and, where affectivity fails, resorts to coercion and oppression.

7. Foundational

* Traditionally a principle is what is first in an ordered set (primum in aliquo ordine). Such principles may be logical or real. Logical principles are propositions from which other propositions may be deduced. Real principles are existential subjects; from them proceed operations related to objects; and such operations proximately are under the guidance of method.

In empirical method such guidance comes from the precepts that have generated the current crop of hypotheses and theories and will generate the improvements and revisions to be embodied in future hypotheses and theories.

* In transcendental method the same precepts remain but two differences emerge. First, the field of data includes not merely the data of sense but also and even more importantly the data of consciousness. Secondly, the structure of methodical operations, in so far as it grounds the possibility of revision, is not itself open to revision.

* By foundations I understand real principles and, indeed, genuine real principles. Foundations then are not simply existential subjects but authentic existential subjects. They are such subjects in all that concerns their discursive and constructive activities. Moreover, they are such subjects both as conscious in the exercise of their activities and, as well, in the objectification of such conscious exercise. However, it is from different viewpoints that these two, both exercite and signate, both le vécu and le thématique,

are relevant.

Ultimately it is the conscious exercise of discursive and constructive activities that is foundational. For is conscious exercise that grounds the objectification of conscious exercise, the exercice that grounds the signate, le vécu that grounds le thématique.

It remains that this grounding is private. It occurs only in the individual in whom the discursive and constructive experiences originate (or in whom they are reenacted), and only in the measure that these experiences are singled out, adverted to, compared with other experiences, contrasted with them, assigned their distinctive and appropriate names, promptly recognized and identified when they recur.

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From the nature of the case such private grounding calls for its public manifestation. For methodical precepts express already understood and commonly accepted manners of cooperation and collaboration. Such cooperation and collaboration constitute a common enterprise and generate an ongoing community bringing about a common and cumulative achievement. The one way in which the members of such a community can know themselves as members, share a common knowledge of their enterprise, its nature, and its goals, is for them to proceed from conscious exercise to thematic objectification of their discursive and constructive activities. On the other hand, in the measure that such objectification is lacking, or haphazard, or incomplete, there results the inarticulateness noted by Einstein when he advised epistemologists of science to pay no attention to what scientists say but to watch very carefully just what they do.

Still if private grounding stands in need of public and common manifestation, it is even more true that public and common manifestation stands in need of personally thematized inner experience. Otherwise the words will be repeated but their meaning will be missed. The formulae may be regarded as sacrosanct but their utterance will not evoke the relevant experiences and so will fail to communicate an understanding of their significance. So authentic beginnings may sooner or later result in an unauthentic tradition, and the momentum of a prestige that once was merited may become an encompassing obstacle discouraging initiative, blocking discoveries, distorting development.

arity and, where affectivity fails, resorts to coercion and oppression.

7. Historical

The foregoing distinction between two types of development has been drawn from an individualist viewpoint. Development from below upwards is the development that can be attained by the individual through the exercise of his own powers. Development from around inwards and from above downwards is the development brought about by association with others and through union with others.

Such a distinction, while it has its uses, ultimately is artificial. Human knowledge is the achievement not of the individual but of the community, not of the community at any time but only over time, not in the short run but over the length of memory in preliterate communities and over the length of history in literate communities. What generates human knowledge is not the experience of the individual but the shared experience of many, not the chance insights of individuals but the cumulative process of insights coming together from every available source to complement, qualify, correct one another, not the evidence accessible to the individual but the evidence reached by any and made available to all. What holds for the development of knowledge also holds for the development of character and of morals. Inspiration is not a private project but a shining example. What all admire is what is praised, and what is praised is what is done; what all detest is what is abhorred, and what is abhorred is what is avoided or at least hidden.

As in the cognitional so in the moral order human advance

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In a Postscript to the second edition of his The Structure of Scientific Revolutions Thomas Kuhn remarked that, were he rewriting the book, it would "... open with a discussion of the community structure of science, a topic that recently has become a significant subject of sociological research and that historians of science are also beginning to take seriously." But not only is there the synchronic interdependence of contributions, collaboration, team-work; there also is the far more important diachronic accumulation of developments that distinguishes the more from the less advanced societies and, in any given society, its present situation from that of its earliest forebears. Moreover, while human scientists are investigating a sociology of knowledge, theorists of interpretative and historical human studies find a key notion in historicity -- that imprint upon individuals of their unexplored past -- that not merely supplies the exegete and historian with the manifold objects of their inquiries but also conditions the possibility and determines not a little of the character of their results.

In brief, the reality that once was vital under the name of tradition and that was transmitted from generation to generation by belief has reasserted itself in twentieth-century consciousness. What was eclipsed by an eighteenth-century cult of individualism, never ceased to be vécu but today has become thématique.

Unity and Pluralism

If individualism is in full retreat not only in society but also in the academy, an ever greater disarray affects the classicism that perhaps was too deeply engrained in eighteenth-century minds for them to discern and name their real adversary.