present science of human behavior, of our psychology, anthropology, and social sciences in general, such as they are, that we must ultimately understand past human behavior, if we are to understand it at all.

But this science of the processes at work in human histories will not of course of itself explain the presence of the particular materials that enter into actual processes. To understand the processes by which ideas and institutions are changed and developed, will not of course explain what particular ideas and institutions are there to be changed. In contrast with a "process," which is always one instance of a universal, a "history" is always a particular, a concrete individual, with a unique material of its own. In that particular history, universal "processes" are at work, and the changes that take place in that history are to be understood in terms of the appropriate science of those universal "processes." The particular materials that are changed by these universal "processes," however, are explained not by the universal processes of change, but by tracing their *histories* to those points where they were formed or transformed—by universal "processes" again to be themselves explained by the science of formation and transformation. Thus a "history"—as a concrete individual, a τόδε τι—is to be understood both in terms of the origin of its materials, and of the operations of human thought and action upon them. The "origins" are always themselves unique histories; the "operations" are illustrations of a science of human operations. To grasp the significance of "a history," we must understand both the continuities and the changes in the histories that things have had.

CHAPTER 3

History as an Instrument of Understanding: The Genetic Method and Historical Determinism

HISTORIES are not only things to be understood and explained. When so understood, histories themselves become instruments for understanding those things of which they are the histories. The joint presence of the continuities and changes in the past of a thing, when once envisaged, can be used to illuminate what that thing has become and now is. Nothing is so clear or obvious as the fact that this is the case; yet nothing about history is so puzzling as the precise nature and function of this illumination that historical knowledge brings. A knowledge of the history of things *is* essential to an understanding of them, and ultimately, of ourselves and our world; yet when we ask *why* and *how,* we are at once plunged into a thicket of thorny questions.

There are a host of impossible explanations of the undoubted fact that a knowledge of the past does illuminate the present. We are told, for instance, that history helps us to understand where we are today, because it explains "what we have been through," and "why things have been as they have": it explains "the pattern of the historical process." This sounds promising, until we reflect that what it means is that what history explains to us is history itself. And this is puzzling: for it is clearly not history that enables us to understand history, but science.

And we are still suffering from the effects of the idea of evolution, whether in the form given it in Hegel and the various Hegelianisms and Marxisms, or in the Darwinians, or in Spencer and the sociologists.

All alike suffered from the delusion that the mere record of the past somehow explains the present, that there is a fixed line of development which "causes" and explains the changes that illustrate it, a necessary dialectic or evolutionary progress of history; and that human institutions and ideas evolve, unfold, and move through time, in a kind of vacuum, by a sort of inner force. Now obviously the record of what has happened is not itself the explanation of anything, but rather presents a series of problems that demand to be explained. Even if we do manage to force the facts into some intelligible pattern, that pattern will be, not the cause of the facts, but itself a result to be explained. Nor does one "stage" of history cause another: causes are to be found, not in the past, but in the experimental analysis of the present. The past is not the cause of the present, but rather itself a resultant of other causes.

Thus Herodotus understands the rise of the Greeks as due to the favor of the gods; Marx, as due to the tensions generated between the forces of production and the relations of production, and the resulting class-conflict that is precipitated; and contemporary historians, as due to the factors involved in our own more complicated social sciences. The record is the same for all: so far as written documents go, it has been largely available and known since the seventeenth century. It is the schemes of science that have changed. Herodotus actually traveled through Greece, Asia Minor, and Egypt, and has left us marvelous stories and penetrating observations. But today, thanks to archeology, we know far more about the *history* of those civilizations than he did. He only *observed* them: we *understand* them. In fact, it can be said, the farther off we get from them in time, the more completely we understand their history.

It is thus clear that the attempt to understand Greece *wie es eigentlich gewesen* is not only impossible, but is not even a valid ideal of knowledge. Yet we must have some understanding of what Greece was; for Greece is one of the most vital intellectual forces today. And if we are to understand the ideas with which we must work in our world, we find ourselves inevitably seeking to understand what they meant to the Greeks who first invented and used them. The past is the storehouse of our materials, which we try to comprehend by the history we write, not by the history our fathers made. And so we select from the scanty record what we can find comprehensible, and interpret it by

means of our science and thought; and the result, incomprehensibly enough, helps us to understand that science and thought better!

How, then, does a knowledge of its history "illuminate" the present? How does it contribute to an understanding and an evaluation of the materials in any present? How does a knowledge of the history of anything function as an instrument for comprehending that thing? Just what about that thing does it enable us to explain?

It is easy to say that a knowledge of the past explains everything, that the history of a thing tells us all about it. It was so said by the advocates of the historical or genetic method in the full flush of its triumphs in nineteenth-century natural and social science, and in the hey-day of the revelation of evolution. The excesses to which these claims were pushed by the uncritical has naturally provoked a reaction. For it is just as easy to say that the record of history itself explains nothing, but rather offers a problem to be explained: that history has nothing to do with evaluation, and that to think that it has is to commit the genetic fallacy. It was so said by Morris Cohen, by Sidney Hook, and by the whole crop of logicians during the past generation: and such a critical view furnishes the main drive in Woodbridge's treatment of evolutionary thinking.

Now it is clear that history does not explain some things: it does not explain itself, as the simple-minded have in effect said, and it does not explain the "origin" of anything. But it is equally obvious that history does make clear other things: it certainly furnishes a great deal of what we can call provisionally and non-committally "illumination." Just what it does and just how it functions needs careful clarification. I propose therefore to undertake a defense of the historical or genetic method; or rather, to attempt a reconstruction of that method into a defensible form. And I want to indicate its proper place in the functional or "problematic" view of history I am setting forth.

In his classic critique of the genetic method, Sidney Hook has well characterized the historical method in its familiar form:

> It starts out from the idea that all objects of historical analysis have had a development and that this development can be rendered significant, or understood, by tracing the spatio-temporal continuity of its structure—whether it be of an institution, or folk-legend, or tool—as far back as possible. . . . No notion is more widespread than that knowledge of the past is the key

to the present. "How did it get that way?" is a question considered by many to be the preliminary indispensable to understanding the state a thing actually is in.[1]

And Hook has also given the most forceful critique of such "historicism":

> Reflection will show that the reverse is true, that knowledge of the present is the key to the understanding of the past. Or to select a more specific illustration, no amount of knowledge of the mind of primitive man will add one jot to our knowledge of the mind of man today; on the other hand, the more we discover about mental processes going on today—in the illiterate adult, the infantile, the superstitious—the more insight we can win into the intellectual life of the primitive. . . . Granting that every institution or historical situation has had a development, the most exhaustive knowledge of its development cannot of itself lead to an understanding of 1) why this institution ever originated; 2) why it persisted; and 3) why it developed in the direction it did. . . . At best historical continuity is a *condition* of survival and not a cause.[2]

The genetic method, then, maintains that tracing the "historical continuity" of anything is an adequate explanation of that thing. Thus any discussion of it soon bumps into the notion of "the continuity of history." Now this notion stands in great need of clarification. In terms of the present analysis, "the continuity of history" is a wholly vague and meaningless phrase. "History" in general is not "continuous." Rather, there are determinate "continuities" that may be discovered in "histories." Every *process* at work in histories is continuous; and the histories themselves have an aspect of continuity, or they would not be unified histories. But they must also have an aspect of discontinuity, of novelty, of new factors coming into operation, or else they would not be histories at all. Thus a falling stone has no "history," though its motion is continuous and its velocity cumulative. For its acceleration remains constant. On the other hand, a disease can be properly said to have a "case-history," though it be "typical," and "run its course"; for its "acceleration" is not constant, but new factors are coming into play.

[1] Sidney Hook, "A Pragmatic Critique of the Historico-Genetic Method," in *Essays in Honor of John Dewey on the Occasion of His Seventieth Birthday* (New York, 1929), pp. 157, 156. Quotations used by permission of Henry Holt and Company, Inc.

[2] *Ibid.*, pp. 156–57, 158.

Hence "evolution" is not a "history," if it be taken as of the unilinear, Spencerian type defined by Spencer's famous formula; though there might be specific histories in a Spencerian world, the result of the impingement of different evolutions with different rates upon each other. Hegel's formula does describe a history, because it introduces novelty as well as continuity; though if it be taken as genuinely "dialectical," that is, as deductive a priori, it ceases to be a history.

In fact, "continuity" is said to obtain in histories in three main senses, which are often confused. 1) In opposition to change or novelty, "continuity" is taken to mean the continuance or *persistence* of materials—physical objects, customs, habits, or ideas. 2) Change is taken as itself continuous, and "continuity" hence means the *gradualness* of change, as opposed to leaps or mutations—as in Darwinian evolution, as opposed to "revolution." Change is held to proceed by small steps, with no necessary continuance or persistence of anything. This is the general nineteenth-century conception of change, as "freedom broadening down from precedent to precedent." 3) "Continuity" is taken as synonymous with the fact of history itself, of the historical character of existence, as the persistence of something that "has" a history, and unifies that history, but undergoes whatever changes happen to it, so that they can be viewed in a serial order of antecedents and consequents as changes of that thing. Continuity in this sense means *uninterruptedness* of function in an institution or idea, not the persistence of materials or forms with a changed function, and is quite compatible with drastic changes in the way of performing that function: e.g., as with marriage, or technology, or the idea of God.

"Continuity," that is, may mean either *persistence,* or *gradualness,* or *uninterruptedness* of function. All three senses point to certain aspects of histories; though it is obvious that the first two, continuity as persistence and as gradualness, do not hold of all factors in every history. A history would be no history at all if everything in it persisted; and it is plain that many histories exhibit drastic changes, revolutions, or mutations.

The well-known passage from E. B. Tylor's *Primitive Culture* illustrates each of these three kinds of historical continuity:

> Looking round the rooms we live in, we may try here how far he who knows only his own time can be capable of rightly comprehending even

that. Here is the honeysuckle of Assyria, there the fleur-de-lis of Anjou, a cornice with a Greek border runs around the ceiling, the style of Louis XIV and its parent the Renaissance share the looking-glass between them.

These are illustrations of sheer persistence of forms.

The ridiculous little tails of the German postilion's coat show of themselves how they came to dwindle to such absurd rudiments; but the English clergyman's bands no longer so convey their history to the eye, and look unaccountable enough till one has seen the intermediate stages, through which they came down from the more serviceable wide collars . . . which gave their name to the "band-box" they used to be kept in. The books of costume show how one garment grew or shrank by gradual stages and passed into another.

These are instances of gradualness, and of persistence of form coupled with loss of function.

In books, again, we see each writer not for and by himself, but occupying his proper place in history; we look through each philosopher, mathematician, chemist, poet, into the background of his education,—through Leibniz into Descartes, through Dalton into Priestley, through Milton into Homer.[3]

Here is the persistence of material with a new function, continuity of means coupled with new problems and new ends.

Now just what does tracing a continuity of the first or the third type in a history tell us? It points to the relevant *antecedents* of the materials in a particular and determinate history. It "reveals" the *source* of those materials, and it "discloses" the particular operations or processes that generated them. These processes must be of a *type* that is experimentally verifiable today; but the concrete processes, and the particular materials they operated upon, are found in the record, by tracing a history. The formation of any belief or institution in the past will thus be an *illustration* of human nature as it is observed today, but a *revelation* of how human nature operated in the past.

Thus tracing a history will disclose the specific function of a way of acting or believing in the past, and how well that way did its job.

[3] Edward B. Tylor, *Primitive Culture* (New York, 1889), I, 17 ff. For comment and criticism, see F. J. E. Woodbridge, *The Purpose of History* (New York, 1916), Chapter III, "The Continuity of History."

It will not of itself reveal the present function of that way, or its adequacy today. But it will illuminate the differences between the conditions then and now, the consequent decline in adequacy, or the changes in the very function performed. It is thus that history is relevant to evaluation in the present, though it does not in itself furnish such an evaluation. For example, to understand how the doctrine of national sovereignty was formulated during the era of the Protestant Revolt does not indicate whether or not it is adequate for our era of jet-plane technology, though it does suggest that the inquiry is worth making. Rather, when we find in our closely-knit world that national sovereignty fits in with international waterways like the Suez Canal like grit in a bearing, and are forced to face the problems with which that confronts the United Nations, the history of national sovereignty explains why we have the problem, focuses attention on the modified functions it must now serve, and reveals how well it once performed a function we can no longer afford to let it perform. Or, an understanding of why it was that the fact of knowledge became a central philosophical problem in the eighteenth century, through revealing the assumptions that then generated it, frees us from the necessity through the mere persistence of those assumptions of finding it a problem today. This is the liberating and emancipating function of historical knowledge, so often and so justly extolled.[4]

One thing that tracing historical continuities does *not* do, is to explain "origins." Historical knowledge may "reveal," point to, give the locus of "origins," but it does not "explain" them. Now the term "origin" is used in the discussion of histories in at least three different senses. It designates 1) the *coming into being* or genesis of something at a time before which it did not exist. Tracing of the history of the thing will lead us to the occasion when that occurred; but it will not explain the occurrence. Such a genesis is explained by the operation of processes verifiable today, by an Aristotelian ὑπὸ τίνος, a "By What." Histories are of course full of such geneses or beginnings. "Origin" means 2) the *source* from which something is derived, the Aristotelian ἐξ οὗ or "From What," the material cause. Now knowledge of the source of materials may be interesting, but it sheds little light on what has been or can

[4] See James Harvey Robinson, *The Human Comedy* (New York, 1937), esp. first and last chapters.

be done with them. The enormous labor that has been spent on tracing the "sources" of various writers in literary history might well have been directed toward what the writer did with his materials, wherever he got them. A generation ago the standard course on Shakespeare spent so much time on the sources of his plays that it had little left for a study of how he used those sources. The former was judged to be literary "scholarship," the latter was not.

It must be recognized that any "source," like any "coming into being," is always specific and determinate, and must be relevant to the particular context or inquiry. Thus we derived the Constitution from the convention of 1787, no matter where the Founding Fathers got their ideas, and from the specific interpretative decisions of the Supreme Court. We got the honeysuckle design from the Assyrians, no matter whence they derived it. We obtained geometry from the Greeks, no matter how they managed to develop it. Inquiry into such sources is relevant to the understanding and evaluation of our materials just in the measure that it is specific and determinate, and reveals the specific function of those materials, whether they be the honeysuckle design or geometry. In contrast, the "origin" of religion, or of marriage, or of poetry, or of myth, is vague and irrelevant unless it be merely a disguised and mythical way of indicating a selection from the manifold functions those institutions are now observed to be serving. The same holds true of *"the* origin of *the* state," or *"the* origin of 'capitalism.' "

"Origin" is taken to mean 3) *antecedents.* In this sense, "origin" designates the mere fact of historical continuity of the third type. In such an inquiry no real "ultimate origins" or real "beginnings" are discoverable—none, that is, that are specific and determinate. The search for mere "antecedents" suggests in itself no principle of selection, no functional context or problem to furnish a selective focus for a history. It is sheer description, like Mill's account of causation. In the context of a history, that is, we can profitably distinguish the "By What" and the "From What," but not the "After What."

"Origin" is thus used in the sense of "coming into being," of "source whence derived," and of mere "antecedent." Only the first two contribute to an understanding of the present; and neither, without reference to other active factors or processes, is adequate to "explain" how anything "comes about." We can therefore agree with Sidney Hook's

statement of the results of a criticism of the genetic method, without taking it as the end of our inquiry:

> It has gradually become clear that a detailed account of a thing's development cannot serve as a substitute for an analysis of its *nature.* Not that knowledge of a thing's development does not contribute to our understanding of its nature, but rather that such knowledge of the past serves at best as a suggestive aid to the experimental determination in the present of what the thing really is.[5]

II

That this is not a conclusion, but a point of departure for further inquiry, I wish to illustrate with a passage from Woodbridge that I have found extremely illuminating:

> When we say that the evolution of anything discloses its *history,* but not its *nature,* we should not prejudge the possibility that there may be things the nature of which is only historically definable, the nature of which is, we may say, just their concrete history. A grain of wheat in its chemical and physical composition is a thing quite different from what we call a seed, the grain of wheat which implies what only its history can make apparent at the time of harvest.[6]

This notion of an "historically definable nature" is most instructive. Woodbridge takes as his illustration the seed, a living thing, an instance of a natural process of growth. This instance of a living organism indeed raises various questions when his further analysis is applied to human histories. But the relation found between the temporal structure or pattern of the seed's growth and the mechanism involved does seem to clarify and illuminate the relation between the temporal structure of human histories and the mechanism they are dependent upon.

> It is conceivably possible that we might know the chemical and physical composition of all seeds without any nook or corner left unexplored; that we might then be able to detect differences in their composition which would allow us to classify them with accuracy, so that one kind of seed could be distinguished without error from any other kind; and yet that we might find nothing which would indicate what the nature of those

[5] Hook, "A Pragmatic Critique of the Historico-Genetic Method," in *Essays in Honor of John Dewey,* p. 156.

[6] F. J. E. Woodbridge, "Evolution," in *Nature and Mind* (New York, 1937), p. 143.

seeds is as displayed in their growth. It is considerations like these that give to vitalistic theories their recurring interest. Yet we should emphasize two things: first, that under the supposition we have made, vitalism is scientifically unnecessary; and secondly, that vitalism would be scientifically necessary only if after fully ascertaining the composition of all seeds we were unable to distinguish between them or to classify them as of different kinds. It may well be that every living thing in its germ has a mechanical constitution as specifically and individually distinct as the specific form and individuality which its maturity reveals. The evidence points that way, and as long as it so points, vitalistic theories are naturally viewed with suspicion. No; the supposition I have ventured to make, has not been made in order that we may entertain once more a theory which retreats defeated again and again after every fresh appearance, but to emphasize the fact that the nature of a thing may be progressive. Time may enter into its substance.[7]

This analysis of the career of the seed as an "historically definable nature" I choose to push a little further, because I wish to use it in analysing human careers and human histories. The characteristic and specific temporal pattern of the seed's career is found to be correlated with a characteristic and specific "mechanical constitution," so that every such constitution or structure indicates such a temporal pattern, and such a pattern implies that such a "constitution" is present as a mechanism. If there is to be that pattern, then there must be that mechanism: it is "essential" to the occurrence. But the "nature" of that mechanism—what it can do, its powers—are revealed only in their operation, in the specific career and temporal pattern correlated with it, in "the nature of those seeds as displayed in their growth." A complete chemical analysis of the seed would not lead us to "expect" such a growth; but confronted by that growth, we find such a seed to be a necessary factor or condition of its occurrence. That is, a certain chemical constitution, of the genes, etc., is essential to that historical nature or pattern, without in any sense *being* that nature. The nature is not definable chemically, but only historically. We know that if those genes are changed, by X-rays, e.g., there will be a different pattern of growth; though even could we analyse the chemical change completely, we could not tell *how* the pattern would be changed. We should have to observe the new pattern, and then correlate it with the new chemical constitution.

[7] *Ibid.*, p. 144.

This chemical constitution I shall call the "material" of that career. It is a set of "passive" powers; but what those powers *can do* is discoverable only when they operate in the career. The "constitution" is chemically analysable in isolation: it operates as a set of limits, boundaries beyond which the operations of the seed's processes of growth cannot go. The Mendelian laws, for example, are the statement of such a set of limits. A "mutation" is a significant change in that constitution, and hence in both its powers and the limits it sets; and consequently it will make possible a new determinate set of operations, a new "historical nature." A mutation is thus an "origin" as a coming into being or genesis. But how the limits have been changed must be observed before they can be correlated with the changed chemical structure.

The specific chemical structure is essential to the historical nature, but it is not the only factor essential. Other factors are needed to set those factors in operation, to serve as stimuli or "active" powers. The soil, moisture, and sunlight interact with the seed as efficient causes or dynamic factors. They are selective of the powers of that constitution, determining which of them shall be realized within the limits set. They may destroy the seed; they may alter its limits or change its chemical constitution, and thus cause a mutation and originate a novel character in the pattern of the career. To do so they must be of the "same order" as the mechanism of the seed: that is, they must be capable of interacting with it. A gardener can plant the seed, but he cannot make a garden by wishing or thinking alone; he must use instruments capable of interacting with the seed, physico-chemical means.

But though the chemical constitution of the seed, and the interacting factors, are both essential to that historical nature, they do not *define* it: they *are* not that nature. That nature *is* its concrete history, the history of that interaction. The growth of the seed is progressive: "time enters into its substance." This does not mean that there enters in or is present any additional "vitalistic" factor or controlling "entelechy"; it means that the process is itself "vital," a life-history, a career in time, to be described as a history of interactions, to be recorded as the rings of the redwoods have recorded each its own unique "vital nature."

Limits are set by the chemical constitution and the interacting factors: they cannot normally operate beyond certain rates, and it will take a certain time for the seed to come to maturity, flower, bear seeds, and

decay. We can state the "normal life-history" of such a seed, that is, under "normal" conditions of interaction. Such a normal life-history will be a statistical generalization. It will be no revelation of the powers of that seed under *other* conditions, as agrobiologists like Wilcox have shown; and as anyone who has ever planted a garden knows, those powers and limits are not dependent on the seed's constitution alone, but on the interacting factors as well. Irrespective of the rate, there is found a certain fixed sequence which can as yet only be described; though when described, it might well be correlated with more elementary chemical processes, like rates of chemical deposit, etc., at certain temperatures.

III

Now when we turn to human histories and careers, we find the same relation obtaining between the "historical nature"—the particular history—and the factors and mechanisms found to be essential to it—between the temporal pattern of the history, and the "constitution" or material of the history. Here too that temporal pattern or history must be first given, before we can analyse how its different factors, the different historical processes at work in that history, have interacted in particular. And the powers of those processes—what they can do—are likewise revealed only in their concrete operations. When we have found those temporal natures, we can then correlate them with the organization of their materials and of the dynamic or interacting factors.

For example, in the histories of societies and cultures, or of their parts or aspects, like institutions or ideas, there are many discoverable patterns of organization, comparable to the chemical constitution of the seed. There is the *economic organization,* a set of institutionalized habits for controlling technology and its fruits; the *technological organization,* a set of habits for turning natural materials to human use; the *intellectual organization,* a set of systematized and operative beliefs and attitudes; the *political organization,* a set of institutionalized methods of adjusting conflicts; the *religious organization,* the most inclusive of all, a set of habitual ways of acting, feeling, and even believing, holding that society together and expressing its common experience; and other organizations as well. Each of these organizations of social habits

is a group of "limits" or "boundaries" beyond which human action in that society cannot go, a set of "passive powers," giving a determinate form and direction to what men can do in that society.

The "history" or "temporal pattern" of that society is consequently "determined"—that is, confined within certain prescribed channels or limits—by each of these organized structures of habits. Thus "social determinism," or "historical determination," in those historical natures that are societies or cultures, means quite literally "confinement" of its activities within "termini" or bounds set by its institutionalized habits. Now, these determining or limiting organizations of habits are not themselves "active powers," or "dynamic factors": they are very definitely *not* social or historical "forces." They *do* nothing whatsoever, but are *ways* in which things are *done;* they are adverbs, not verbs or processes—they are *limits,* not activities. This is fundamental for any understanding of social or historical "determinism."

Thus "economic determinism" does not mysteriously invoke nonexistent economic "forces"; it refers to the limits set to the possible economic interactions in a society by the "relations of production" that are habitual in that society. Thus under our economic system—or any other—the only governmental program of dealing with unemployment that will receive the support of the business community is national defense and war—as both Hitler and the New Deal found out, and as has been learned by subsequent American administrations, both Democratic and Republican. "Political determinism" points to the limits set to possible activities by the prevailing habits of political action. Thus, in the absence of representative government, all political differences become "conspiracies," as in Russia. With representative habits and methods, it is necessary to take account of public opinion, and to employ all the resources of Madison Avenue to persuade or bulldoze people to follow your policy. "Intellectual determinism" points to the limits set on action in a society by its store of available knowledge, methods, and attitudes.

Now, in general, the more inclusive the organization, the more "determined" it is itself by the activities it serves to organize, the more it is limited by those materials, the more "derivative" from them it is. For example, a political organization, as the habits of adjusting differences and conflicts within a society, or within an institution or group,

is obviously dependent on or limited by the conflicts of interest or habit it smooths over, by their intensity, and by the need for unified action. That is, the political problems of securing cooperative action through adjusting conflicts of interest, habit, and desire, are themselves largely "determined" by factors in the particular "organization of habits" within which the conflicts take their rise. Today, these factors giving rise to conflicts are largely economic. But they are also religious, as in Ireland, India, and Boston; or they involve moral patterns of living, like birth control and prohibition. Or they are "nationalistic"—perhaps these are only a contemporary type of religious factor, and are so intense because we have as yet been able to devise no adequate political method of dealing with such religious emotions. The "political organization" is itself determined by the intensity of the conflicts it must deal with, and by the need for unified social action. Whether the political methods of the French Republic can solve the problems of conflict in Algeria, whether those of the British "commonwealth" can solve those on Cyprus, whether those of the United States can solve the problems of desegregation—these are themselves problems still to be determined.

But the political methods available themselves "determine" the conflicts they exist to harmonize; that is, the intensity of the conflicts is a function of the lack of means of adjustment and compromise. If you can hope to win in the next election and get something of what you want, your temper will remain below the boiling-point. If there is some institution, like the old French Senate, or the Supreme Court before Roosevelt got it on the run, then you will get up steam to "capture the state." The situations in Cyprus or South Africa are cases in point. And every form of political organization generates its own institutionalized complex of behaviors and habits, with clustering vested interests, including a bureaucracy that impedes and limits adjustment. The political power to enforce cooperative action notoriously has a relatively independent career of its own, as we have seen in men as different as Stalin and Roosevelt.

The religious organization, as the most inclusive organization in a society, is the most determined by that culture, the one most clearly a "reflection" of it, like the priestly religion of Bergson's closed society, or the emerging American religion, or the social religions of Europe.

On the other hand, the intellectual organization or "science" of a given culture, in the measure that its beliefs about nature are controlled by the structure of nature itself, is least subject to "social determination"; while its "social science," the attempt to organize intellectually its beliefs about society, is notoriously much more narrowly determined by its materials, and much more limited by the habits and attitudes of the group whose problems it formulates and tries to deal with. This is the basic difference between the various "organized systems of beliefs" of different cultures, and the functional knowledge of how to do something—between the countless schemes of "intelligibility" or "understanding," all socially determined or limited, and the type of "science" generated in our own society, which has been increasingly determined by the functional structure of its subject-matter—that is, by the relation between means and ends, which can be verified as a means to manipulating that subject-matter.

Now the world and its several subject-matters exhibit an infinite diversity of structures or relatednesses through which they may be intellectually grasped. On various selections of these structures, many different "organized systems of beliefs" or "schemes of intelligibility" —many ways of understanding—may be based. Each scheme or way will be socially determined to serve some specific social function, in addition to serving the general psychological function of making men "understand" or feel at home in their world by providing relations they can count upon.

Our own science is likewise thus socially determined: its function and aim is kept "within the bounds" of the "power to do something," the power to manipulate natural materials, by the organization and pattern of habits in our society. Our science is socially limited or determined to inquire into and understand in terms of those selected relations that are the natural structure of modes of operation, the relations of means and ends, the functional structure of processes. That is, our science is socially determined to be an art, a technique, a technology; and we "understand" something when we know how it is brought about, when we can manipulate it, and thus produce what we want, and thereby "verify experimentally" a functional relation of means to ends.

The history of the working out of this type of science in our society explains why it is socially determined to be functional or technological

knowledge: indeed, this is a clear illustration of the use of historical knowledge as an instrument of understanding. The growth of the arts and crafts, and the accumulation of capital, led to the demand for a "useful knowledge" of ways of operating, or functional structure, long before the means and methods of gaining such knowledge were perfected. Thus the problem was socially set or generated, how to build up a type of technological science like ours. How that problem was set, is "revealed" by tracing its history, and "explained" by recourse to our science of social change. This problem was faced, when it confronted men in the sixteenth century, with resources consisting of two other kinds of science: 1) the classifying and linguistic scheme of the Aristotelian schoolmen, especially as turned from a religious to a practical function in Northern Italy; and 2) the techniques of the essentially aesthetic science of Greek mathematics, likewise bent to a "practical geometry" in Italy—though the idea of a mathematical science of nature for practical ends had been already generated in religious interests. The nature of these materials is all "revealed" by their complex histories, and "explained" in terms of an elaborate set of social determinations.

But that history of materials out of which our science was built makes it clear why it took so long for an essentially technological science to develop frankly the form of a technique, a means of manipulating things—to make central the structure of means and ends, of modes of operation, and to work out the appropriate techniques in mathematical procedure. The historically conditioned nature of those materials imposed limits upon them, and made them refractory to the new uses to which men were bending them. Their history explains why they were refractory, why the materials presented the problems they did. Our present scientific knowledge explains the measure of their success: why their use enabled men to do what they did. They succeeded in the measure that they did grasp the instrumental structure of things, and thus served their socially determined function of being "useful knowledge," of how to manipulate, just to the extent that they were determined by the structure of natural modes of operation—by the way things really act.

Thus social organization determines the aim and function of the science generated in a society. Then that science, if it be the knowing how to do things, determines the other organizations in turn—it imposes new limits upon them. This is the situation typical of the complex relation between the different types of social or historical determination.

Our science is still subject to many other kinds of determination, which help to set its problems and limit its attitudes. "Science" is itself an institutionalized complex of behaviors and habits, each with an inertia and a persistence of its own. Russell has pointed out that whereas American rats placed in mazes rush around madly until they chance upon the way out, German rats sit down and calmly figure out the answer. This is a place where the history of materials and the tracing of their "sources" is important, for it leads us to the different intellectual "traditions," with their characteristic assumptions and ways of thinking, that are so important for understanding. This determination by an intellectual tradition is most obvious in the case of "theories," the schemes of interpreting and organizing experimental results, as contrasted with techniques and procedures—that is, in just the measure that "understanding" in terms of a familiar pattern takes precedence over functional knowledge.

But in the measure that our science has become a functional knowledge of how to do things, and concentrates on means, the natural ways of operating of materials, it has gained relative independence of these other social determinations. And the most significant "mutations," or novel factors introduced into our culture, have since the seventeenth century come from science, which has been the chief "dynamic factor."

We have been examining the complex "constitution" or "structure" of a society, its various organizations of habitual activities, which, taken together, correspond to the "chemical constitution" of the seed. These organizations, we have seen, form a set of specific powers imposing "limits" or "bounds," and thus determining the activities of men in that society. But just as in the case of the seed, what these determinations or limits set to the powers of a society by its various "organizations"—its "constitution"—actually are, is revealed only in its history—in its "historical nature" as exhibited in the temporal pattern of its growth. A society *is* an "historical nature"; that is, it is *not* its limiting organizations alone, taken at any given moment—they constitute merely its formal structure—but it is rather its concrete history: "time enters into its substance."

And significant changes in the limits and the powers of these organizations—what the biologist calls "mutations"—have been generated in all of them. Science has its discoveries, technology its inventions, politics its "statesmen," religion its "prophets." Each organization has its own history, in which the others appear as "interacting factors." And that history must be given before it can be understood and used to analyse our materials. Thus the history of science is not merely a history of scientific problems, but also of the way in which those problems have been determined or limited by technology, the economic organization, religious habits, etc. And the history of the economic organization is not merely the history of economic problems, but also of the way in which those problems have been determined or limited by technology, by scientific knowledge, by religious habits and beliefs, by political methods, by habits of behavior like national allegiance, etc. It is thus a matter of the particular focus taken—or imposed—which set of problems the historian makes central.

IV

We have so far taken Woodbridge's notion of an "historically definable nature," his example of the seed, and his statement of the relation between the temporal pattern of its career and the chemical constitution of the seed—between the formal cause of that career and its material cause, the material or mechanism involved in that career. We found that the chemical constitution could be analysed in isolation from the seed's temporal career; but that as a mechanism *in* that career, it functions as a set of determinate "passive" powers limiting possible interactions with the environment. That environment provides a set of stimuli or "active" powers, as well as a further set of passive powers of its own. The distinction between "active" and "passive" powers is always relative to the particular context; what is really active or dynamic is the process of interaction itself. The career of the seed—its life-history or vital pattern—is the record and conservation of those interactions, their cumulative consequences.

These processes of interaction are of a certain type or "order" determined by the constitution of the seed itself: they are *physico-chemical.* But the pattern of the career or life-history is of another order, biological or *vital,* that is, temporal and cumulative. This "vital" and

temporal pattern of the seed's career is not an "active power"—it is not an efficient cause, though it may be said to be a formal cause—but is rather a resultant of physico-chemical interactions. Nor is it, like the chemical structure of the seed, a "passive power," or limit. It is the record of the actual interactions of seed and environment, of the co-operation of their joint powers. What those joint powers can do—what the powers of the chemical structure of the seed, and of the environment, and of the chemical processes of interaction between them, actually *are*—is revealed only when they cooperate in a concrete career: it is not revealed even in the normal or typical life-history or career of the seed. This biological, temporal, "vital" pattern neither causes, controls, nor limits the chemical interactions that produce it: it *is* rather the career which those interactions, within the limits imposed, actually cause.

Now when we go on to examine how far human histories and careers are like the career of the seed, as a prelude to examining in such histories the relation between material causes and mechanisms to the formal cause or pattern of the career, that is, the relation between the recurrent processes in histories to the pattern of that history itself, we find ourselves considering the nature of "historical causation" and "historical determinism." We have found that the "constitution" or structure of any society, culture, or institution can, like the constitution of the seed, be analysed in isolation from the history of that society. We have distinguished a number of organized behavior-patterns or structures: economic, technological, intellectual, political, religious, etc. But in the history of that society these organizations function as a set of passive powers, determinate powers limiting possible interactions, determining or limiting the ways in which men can act, what they will do. Men act in all the ways described by these different culture-patterns, or organized institutionalized forms of behavior. They provide both a set of limits or passive powers, and a set of appropriate stimuli or active powers. Each way of acting interacts with the others, and is both stimulated by and limited by the rest. What is really active or dynamic, that is, what changes the patterns of acting, the organizations of group habits, is the process of interaction between activities taking place in accordance with these different institutionalized ways of acting. The career of the society—the historical and temporal pattern of its changes

—is the record and the conservation of those interactions, their cumulative consequences.

We have examined the way in which these various "organizations" in a culture set limits to or determine possible actions—and therefore the "history" of that culture. We have been led to a formal analysis of causation and determinism in histories. Such "historical determinism" we have viewed as the *limits* set by the organized patterns of behavior that make up the structure of a culture. It is pluralistic, involving a multiplicity of different sets of limits or determinations, with varying degrees of independence and "derivation," but mutually interacting on each other. Each set has a career of its own, but each is "determined" by all the others. These institutionalized behavior-patterns are not themselves "active powers" or "dynamic factors." The active powers in histories are not "habitual ways of behaving," but what men actually do; and such concrete human action is determined not only by social habits, but also by conscious and reflective attempts to deal with the problems forced upon men, and with those generated by the unforeseen consequences of their dealing with the problems they have tried to solve. Such reflective human action is another kind of process that histories reveal. It is what makes it impossible to understand human histories merely in terms of their material and formal causes alone; they must be seen in the broader functional context of efficient and final causes, of means and ends.

The processes of interaction in histories are of a certain type or order, which is determined by the "constitution" or structure of the culture itself: they are *psychological,* that is, human ways of behaving. But the temporal pattern of the society's career—its actual history—is of another order: it is *historical,* that is, temporal and cumulative. Now this "historical pattern," like the "vital pattern" of the seed's career, is not a) an active power or cause, but is the resultant of human actions; nor is it b) a passive power or limit. It is the record of the actual operation of the powers of human nature as organized in its social institutions. What these "powers" of human action *are,* as socially organized—what men *can* do in their group behavior—how they will act under various conditions, is revealed only in their concrete histories. It is not revealed even in the "typical" or "recurrent" patterns exhibited in many histories, and repeated in some, those patterns that form the subject-matter of the science of social change. These recurrent patterns neither cause,

control, nor limit human actions and their interaction—though such action is limited by the concrete "organizations" of habit.

Again, just as in the case of the seed, the "dynamic factors" in human histories must be of the "same order" as the organizations of human behavior which make a culture what it is; that is, they must be capable of acting on human behavior. That is why the notion of "human behavior"—of habit and of institutionalized forms of acting—is fundamental in the analysis of human histories, just as "physico-chemical processes" are fundamental in the seed's career. Just as the material cause of the seed's career is its chemical powers and constitution, so the material cause of any human history is the institutionalized, socially organized behavior of men, and in just the sense in which that career can be understood in chemical terms, as the chemical interaction of various factors in the environment with the chemical constitution of the seed, so human histories can be understood in *psychological* terms, as the interaction of the various factors in the human environment with the behavior-patterns of human groups.

The career of the seed is not its "chemistry," and the history of a group is not its "psychology." But just as the gardener, whatever his purpose, must use physico-chemical means in planting his garden, and bringing about the distinctive careers of his seeds, so action of any kind in human histories, whether of geographical environment or of conscious and reflective human purpose, must be capable of influencing the behavior, attitudes, and beliefs of men.

In the seed, we have distinguished two types of *recurrent pattern,* chemical and vital; and in human histories likewise two types, psychological and historical. These types of recurrent pattern are in addition to the concrete and particular pattern or structure that *is* the unique career of that seed, or *is* that individual history.

	Recurrent:		*Unique:*
Seed:	Patterns of organized Chemical Processes	Vital Patterns	A Career
Society:	Patterns of organized Psychological Processes	Historical Patterns	A History
	Mechanisms	*Resultants*	

The unique career of the seed is chemical in its mechanism: it is the resultant of chemical processes. But it is vital in its form: it is temporal

and cumulative. The individual history is psychological in its mechanism: it is the resultant of human actions. But it is historical in its form: it is temporal and cumulative. This holds true also for the recurrent or typical patterns in the second column, which can be illustrated in unique careers and individual histories. They too are in form vital and historical, respectively; but they are not unique, they are repeatable. They can be taken as the patterns of specific organizations of chemical processes or of psychological processes, in contrast to the more general ways of behaving of the simpler chemical processes, or of the more elementary psychological processes, listed in the first column.

Thus, just as the seed, in its "normal environment," has a characteristic "life-history" or career, so the actions of the group, in its "normal setting," may exhibit characteristic and recurrent historical patterns: for example, the business cycle, the pattern of cultural assimilation, the pattern of political revolution. Such recurrent historical patterns are often called "patterns of 'historical processes.'" But this is confusing and misleading: it is like speaking of "patterns of 'vital processes'" in connection with the seed, as though the processes at work in the living career of the seed were other than chemical interactions. It suggests that the processes at work in histories are other than human actions. Such a way of speaking is apt to obscure the basic fact, that such recurrent processes are *not* operative "forces," as are chemical interactions, or human actions, but are rather cumulative resultants or registrations. They neither cause, control, nor limit human actions: they in no sense "determine" the course of history.

These recurrent historical patterns are a) psychological in their mechanism, just as the vital patterns of the seed are chemical: they are typical patterns of human behavior under typical conditions, subject to all the determinations already listed. But they are b) historical in form: they are not deducible from the "laws" of human behavior analysed in isolation from the complex social and historical setting in which it is illustrated, as under laboratory conditions, for example, or as generalized from a wide variety of contexts. They are temporal and cumulative: like the normal life-history of the seed, they display a fixed sequence and order of stages. In human histories, the recurrent temporal patterns are, like the normal life-history of the seed, statistical generalizations. But they are neither so "typical" as the vital patterns of the

seed, nor are the elementary psychological processes, the specific interacting factors that are the mechanisms or causes of these historical patterns, so difficult to analyse. The "environment" of a human history is never normal, save in the most general terms: "cultural assimilation," e.g., itself has a history. And the environment of a human history, unlike that of the seed's career, consists largely of other careers: it is social and historical. Hence in a history there is no clear distinction between that history and the "dynamic factors" in its environment. Depending on the focus we take, any factor may be treated as "dynamic," while the rest will then appear as "limiting" or "determining."

Strictly speaking, the recurrent patterns of the first type—those in the first column, the chemical pattern and the psychological pattern—are likewise statistical generalizations of ways of interacting with the environment. These ways, formulated as chemical or psychological laws, do not set any limits or determine the interactions. What does set limits is the constitution together with its environment: if either or both are altered, new ways are displayed. The patterns are "recurrent" only in so far as these materials and conditions remain the same. Hence the recurrent psychological patterns neither cause, control, nor limit human actions and their interactions: the limits are set, not by these elementary psychological processes, but by the concrete organizations of human habits.

The concrete career of the seed, or the concrete human history, is always unique: it is the cumulative record of many specific interactions. The recurrent patterns, both those in the first column, the chemical and psychological, as well as those in the second, the vital and historical, are the product of different degrees of abstraction or isolation from these concrete and unique careers and histories. The two first are more generalized, from a wider variety of varied contexts. The patterns of the chemical processes are the most generalized of all, and hence the most constant through the widest range of contexts, because they are most abstracted from any particular career. They have been established under laboratory conditions. Yet even here biochemistry shows that by altering the environment, marked changes in the pattern will be produced, especially in the rates of chemical accumulation.

With the psychological patterns, the typical patterns of human behavior under typical conditions, such "abstraction" is much more diffi-

cult. Laboratory conditions here seem able to deal only with the most isolated kind of behavior, like reaction times, the learning curve, and such segments of behavior. We all know how short a way "experimental psychology" has been able to go with organized human behavior. As Graham Wallas used to remark, it has run into great difficulties when it tries to go much further up the scale than the decorticated white rat.

Moreover, the structure of human behavior, both individual and group, the organization of responses that corresponds to the chemical constitution of the seed, and may be called the "constitution of human nature," has itself had a history, and no laboratory conditions can isolate it from that history. "Human nature" not only like the seed exhibits different powers in different environments: in those different environments it actually *has* a different "constitution." For "human nature" is not significantly the wealth of possible responses with which the newborn infant is endowed, any more than the "constitution" or "nature" of the seed is the possible actions of its constituent chemical elements. It is the *organization* of those elements, or those responses—the particular set of organized habits generated by the social institutions of the society into which the infant is born, that make up its environment. Human nature is thus not "constant" and "original," but fundamentally historical in character: human nature is an *historical nature,* like the seed's career.

Hence the psychological patterns in histories are themselves *historical,* like the particular behavior patterns of the various "organizations" of social habits, economic, technological, intellectual, political, etc. And they are *plural,* varying in different cultures, classes, and groups. We can hence "predict" how men will act in the envisaged future; but we cannot predict the changes in their action that will be effected by changes in the determining organizations or institutions. We may be sure of the persistence of present ways where change is not forced: it is clear we can expect no drastic change in general in the near future, no matter what revolutionary institutional changes are brought about. But we cannot predict those forcings, nor the long-term changes. Hence there is ground for no facile optimism. There is no method of drastically changing human nature overnight, or next year; and there is no certainty what changes in human nature any institutional change will

produce, even in the long run. There is certainly no available art of how to change human nature. But likewise, there is no justification for an ultimate pessimism, no ground for believing that "you can't change human nature," that men will always act as they are acting today.

If this historical and plural character is true even of "psychological patterns," it is all the more true of the recurrent historical patterns. They are likewise historical and plural: they are the cumulative record of psychological processes or ways of behaving; they are "recurrent" only when the same psychological processes and the same conditioning organizations of habit are present, and both these have histories.

V

We have been analysing the relation of material to formal causes in histories, the relation between the structure of the materials of histories, social organizations or institutions, and the temporal pattern of those histories. That is, we have been analysing "historical determinism," or how the structures of a society limit its possible histories. We have found that the materials of a history are always psychological, habitual ways of behaving, "human nature" in the concrete sense of particular socially conditioned organizations of activities that function in that history and themselves have a career. Human ways of acting are the "substratum" or *τό ὑποκείμενον* of any history: they are what persists, is acted upon, and modified in that history. And since it is these materials that set the limits to and determine the powers of what men can do, all historical determinism is thus *psychological.* This is largely true even of the determination or limits set by natural conditions: by geographical environment, climate, available raw materials, etc. The limits such conditions set are not only limits set *to* human action: their limitings are a function of the available knowledge and technical skill. Consider how differently South Africa has limited the Kaffirs and the English, or Peru the Incas and the Guggenheims. In any event, these "natural limits" have today been pushed back so far that their restrictions are now basically a matter of human social organization. Thus, in the thirties it was said that Germany "needed" raw materials. But she "needed" them only in the sense that she was unable to pay for them, except in aspirin and cameras—a matter clearly of social organization. Today Europe is being greatly "limited"—and perhaps deter-

mined to various rash actions—because oil from the Middle East has been cut off. But the oil is there in abundance, and the technical skill to get it to Europe is part of our know-how. The limiting is by the inflamed "nationalistic" emotions directed against "colonialism"—something only too patently "psychological."

It is well to insist on this psychological character of historical determinism, for it enables us to escape what we may call "historicism," a fallacy analogous to the fallacy of "vitalism" in analysing the career of the seed.[8] Because the biological pattern of the seed's career is "vital," or "living," we are tempted to convert that temporal pattern of living into an active and controlling force, "life." Likewise, because the temporal and cumulative pattern of a human history is "historical," we are tempted to convert that historical pattern into an active and controlling force, "history." In the face of this temptation, which has not always been resisted, it is well to point out:

There are no "vital forces" in the seed's career—except in the sense in which there can be said to be "dormitive powers" in opium. These mere "nominal essences" are, to be sure, convenient classifications, and they serve to point to the real problem, what chemical processes are involved? Likewise, there are no such things as "historical forces," except "human action"; i.e., men doing certain things in certain ways that have had histories. Yet our histories and our thinking have been full of such "forces" as "nationalism," "democracy," "individualism," "collectivism," "liberalism," "imperialism," "communism," "fascism," etc., all conceived as "powers" that can be "born," "grow," "spread," "promise," or "threaten." In 1848, we have been told, "nationalism" triumphed over "liberalism"; and thereafter "imperialism" captured "nationalism" and ruined "individualism."[9] This is a typically "vitalistic" view. I am not suggesting that such terms are wholly meaningless. But

[8] I am aware that the term "historicism" has been used to designate other positions, all of which are uniformly considered by those who use the term to be fallacious. But what these positions are, what they all agree in maintaining, and why they are all considered to be "fallacious," are questions to which I can find no clear answer in the voluminous literature that raises them. Hence I propose to use "historicism" with a precise meaning.

[9] I am afraid that Carlton J. H. Hayes, on whose admirable textbook I cut my eyeteeth, is sadly guilty in this matter. His later mortal fight against "nationalism" could not fail to make that "nationalism" appear to him as a force to be combated with every weapon in his power.

they do not designate "forces," nor even any concrete way of acting or organization of behavior. They denote rather certain aspects of many different ways of acting, selected by their reference to some particular problem. Thus "liberalism" has a determinate meaning only in some specific functional context—in terms of some definite issue—and I am still trying to find out what problem Americans had in mind when they were engaged in hating "fascism"; since they seemed quite willing to act very much like the people they disliked.

The same criticism applies to all the components of human histories, to the different organizations making up the structure of a society. Thus there are no *intellectual* "forces," except in the sense that men with certain beliefs and knowledge act differently from those without. The ideas men entertain and act on certainly make a difference—when men act on them. But ideas are not forces unless entertained by men, not even when entertained by God—for in human histories God can act only through men. We have gotten over the "idealistic" notion of the independent action of ideas, if any idealist ever entertained it: Hegel clearly did not.

Again, there are no *economic* "forces," except that men doing things in certain ways produce certain characteristic consequences. It is always possible for them to do different things in the face of their problems, if their environment, the organization of their activities, has changed. These adjectives or classifications, "intellectual," "economic," etc., are convenient in designating the ways in which men act "intellectually," or "economically": they distinguish ways of acting. But unless they are translatable into such ways of acting, they remain merely nominal essences, like the seed's "vital forces."

Nor are there any "laws," "tendencies," or "directions" in history in general, save in the most positivisitic sense, as pure descriptions or registrations of the course of events; and even then, if the context be taken broadly enough, as in Sorokin, they all reduce to "fluctuations." Such tendencies or patterns are discoverable only in the context of selected histories, and even there they are not the expression of the operation of any "underlying forces" that could be correlated with them, but rather the expression of the results of the complex interactions of men acting in many different ways. We cannot take these tendencies as the basis for prediction, or count on their continuance,

unless we have found the ways of human behavior of whose interaction they are the register, and have discovered the "human mechanism" involved, the particular psychological processes.

There are thus no "historical forces" or "historical laws or patterns" that operate as controlling forces dictating what men can and will do. What men can do is "determined," not by their history, but by what they *are,* by their "nature." This nature is itself "historical." But this means, not that their history dictates what they *will* become, not even that it is their "history" which "determines" or "limits" what they *can* become; but that the same kinds of activity, carried on within a multiplicity of limits, that have given them a history in the past, will continue to give them a similar history in the future; and in a "dynamic" or changing society will change their "nature," those organized habits that set the limits.

A society or an institution is what it is—or better, is becoming what it is becoming—because of what men have done in the past. And what it is, is to be understood as the fruits of what men have done before. But what it will become is "decided" not by what men have done, but by what they are doing and will do with those fruits. What they *can* do with those fruits—the powers of their materials—is "determined" or limited by what those fruits have been made into, by what men have done with and to them in the past. But though these inherited materials, and through them the past history they embody, set limits to or "determine" what men can do with them, what those limits actually are cannot be discovered until men try to do something with them. That cannot be discovered in a merely formal context, by analysing the structure of those materials in isolation from working with them, but only in a functional or teleological context, by using them as means toward envisaged ends.

And though men's materials, the fruits of the past, *determine* or limit what men *can* do, they do not *decide* what men *will* do with them, nor do they decide what new or altered limits will be imposed by what men will do. That unique and particular "decision"—the human action itself—depends, in addition, on the problems men see, on how clearly they see them, and on their ability and skill in bringing their materials and resources to bear on meeting the new problems. It depends, that is, on factors to be found not in a merely formal context, but only in a genuinely functional or problematic context—when, in the need of action, men use their materials as means to doing something about those problems. For one of the kinds of activity that has given men a history in the past and changed the organization or limits of human nature, and will continue to do so, is the activity of intelligent problem-meeting.[10]

So far, we have been pressing the analogy between human histories and the seed's career. This is possible in a purely formal analysis, when we are considering as we have been the relation between the two structures alone, the structure of the materials and the structure of the temporal pattern. But wherever we started we have always reached the point where questions were raised that are not answerable in terms of such a formal analysis alone, and point to the need of a further functional analysis. For human histories do differ significantly from the career of the seed; and this difference between a "history" and a "career" becomes of major importance when we try to use our knowledge of histories as itself an instrument for the further understanding of what has had that history.

The constitution of the seed is much more unified than the structure of any society, culture, or institution. No society or institution has a single structure or constitution: it possesses rather a plurality of interacting structures or behavior-patterns. In consequence, while the seed, like any organism, has a *career* as a whole, a society has no such career, for it is not a whole, nor does it possess the unity of an organism. A society, in consequence, possesses not a career but a *history*.

A *career* is a temporal continuity in which there is a *persisting subject,* a *ὑποκείμενον,* that acts and is acted upon, "develops" and "evolves." The best illustration of a career is the "life" of a living organism, a seed or a man. Careers belong to wholes that persist through time, and preserve an identity amidst change. They enjoy a career as a whole just because they are wholes. Of the fortunes of such wholes, we can tell the stories or narrate the careers, beginning at the beginning, and following through the events in which they figure.

The histories of societies, institutions, and ideas are *not* careers. There

[10] Footnote on "Sin": "Decision" depends on "will" as well as on knowledge, and will is limited by "sin." But sin itself has a history, and the limits it imposes are continually being altered. Sin, that is, is not "original"; it is itself an "historical nature."

is a *history* of these things: when we look backwards, we can trace the "sources" and the "genesis" of the factors found in the present, the antecedents that led up to what has eventuated, and is relevant to the problems now confronting us. But there is no "career," in the sense that we can find any "beginning," and then follow the "development" of what has persisted as a whole, as in the case of the life of the seed or of a man. For there is no whole that had a "beginning," or persisted. What has eventuated is not a whole, it is rather a plurality of ways of acting, interacting, and generating problems, which form the foci for selecting histories. We can trace backwards the antecedents of present problems: we are thus led into a plurality of "histories." But we cannot follow the career of any society or institution, and trace its consequences: we are led out if we try into a multiplicity of other careers, with indefinite ramifications. Looking backward, we find continuities of materials stretching into the past, with a focus in present problems. These continuities reveal further foci in the past, the problems that generated those materials, which in turn lead us back to the further past continuities of their materials. But looking forward into the future, we see, not such continuities, but problems, choices, new solutions. We see breaks in continuity, changes, contrasts with the past, happenings, events, actions; we see not "habitual ways of behaving," but "what men actually do," their "decisions"; not "why" they do it, what "limits" their action, "why" it limits it, "how" the limits got there. That is, we see the history that is to be understood, not the history that gives understanding.

The historian, bringing to the unification of a present focus our organizations, institutions, and ideas, is indeed tempted to view them as unities or "wholes," rather than as unifications in a functional context, and to attribute to them in consequence an antecedent career. These habits unified in such a problematic context, whose histories we can trace, can indeed be regarded as having had a career "potentially," before the problems were forced on our attention, and we can now be said to be "selecting" that career, and bringing it to light. This is what Hegel meant by "an Idea coming to self-consciousness": we now understand what was *really* going on, *we* bring it to the light of reason. An idea, for instance, may be said to have been enjoying a career, in the sense that its implications have been gradually developed

and worked out. But such an idea *is* essentially the fully developed idea, not the one that started its supposed career with such development only potential. And it seems less dangerous and misleading to say that the developed idea or institution has had a history, than to say that a potential idea is enjoying a career. The latter view, in the hands of Hegelians and evolutionists, has led to mythical treatments: histories have been transformed into mythical stories of careers.

Thus once again our analysis of "historical natures" has taken us to a functional or teleological structure of means and ends in which those natures are unified in the focus of problems. Our examination of the use of historical knowledge as an instrument of understanding has thus brought us to the same *functional* and *objective relativism* to which we were led in the former analysis, in the preceding chapter, of the understanding of history.

CHAPTER 4

History as an Instrument of Understanding: Historical Decision

THE FORMAL analysis of histories carried through in the preceding chapter has pushed us to a functional analysis of their teleological structure. Histories have their focus in an outcome or eventuation. Within the limits or determinations set by the structure of their human materials, the social organizations of human behavior in a society, human action effects a "decision" that leads to that outcome. In turning to this "decision," we turn from the consideration of material and formal causes—the limits and determinations set by the social structure upon the temporal pattern of a history—to efficient and final causes, to the "dynamic factors," or "active powers," that can serve as means to ends and eventuations.

"Historical causation" involves both sets of factors: the *formal* pair, material and formal causes and their relation; and the *functional* pair, efficient and final causes and their relation. The second set is usually neglected: "historical causation" is then treated as though it were identical with "historical determinism," and exhausted by it; whereas in fact "determinism" is only half the story. When "decision" is overlooked, the "limits" set to human action in histories are taken as what brings those histories to pass—as though what men for psychological reasons *cannot* do were what makes things take place! All the various so-called "historical determinisms": geographical, climatic, racial, psychological, economic, and the rest, treat a "limit" as though it were an efficient cause or "dynamic." That is, they are all non-functional, and as such metaphysically unsound.

Historical causation includes *historical decision* operating within the limits of *historical determinism*. It is the "decision" that actually brings

about the eventuation, and thus the history itself. Problems are forced on men by "history," that is, by what men have already done in the past in meeting earlier problems. In any history there is presented not only a possibility of thought and action, but a possibility of thought and action in very definite and limited channels, with a compelling demand to be realized. The "implicit ends" in a history may not be realized. But if they are, it is only because men have studied those ends and have discovered the means by which to bring them about. Men live always in a limited world, not in a world of boundless choice. And their choice of the means to use in facing their problems, the problems that are set before them and must be "solved" whether they will or no, is freest in the measure that men recognize and know these limitations. What must be done, what men are, what they can do, how they can do it—these are all things "there" to be discovered. What is not there already is whether men will do it. That depends on the discovery, on whether men know, and how far they know.

What is forced on men is the end—the tendencies working themselves out, the dynamic activities that are changing other ways of acting, and pointing to further changes in the future. This imposed end generates problems of means in detail: just how these changes are to be dealt with. "What has to be done" is determined by what has been done—it is "given," or forced on men. Men do not set themselves problems: what they have done and are doing sets the problems, which appear to them in the envisaged future, the projection of what they are doing—how their institutions are operating, the tensions, maladjustments, and conflicts they are generating. The past leaves a deposit of materials and resources, which set limits, "determine" what men can do in dealing with those imposed problems. Within the limits of "historically determined problems" and "historically determined resources," men act: they "decide" what way the problems will be met, they do what they will do. Their historical decision generates new problems in turn.

The problems thus forced on men by "history" are plural but interrelated; they become unified with further knowledge, and with the further advance of the history-that-is-lived itself. Thus in one restricted field of the impingements of technological invention on social control, we have forced on us the traffic problem, the parking problem,

the accident problem. The better they are seen and understood, the more knowledge of facts is gained, the more the problems become unified. And the more they are seen to be unified, the more choices and decisions will be made with reference to that unification. The process is clear in wartime, or in the cold war; but such occasions merely make explicit what is always there but not realized. Thus ultimately we come to focus on the "basic problems for these times": our knowledge of the facts forcing such a unification upon us leads us to formulate the "real issues."

These problems are further unified as more history is lived: for the plural problems are never fully unified in any present. The "real problem" remains a faith—a rational faith to the extent that it is forced by knowledge. Thus, was winning the war the real problem in 1945? Do we not now know that Churchill saw further than Roosevelt? And is the containment of Russia the real problem today? Such problems never become fully conscious; men see specific problems, and the "larger pattern of history" is revealed only later—it is known fully only to God. That is, it is a function of our knowledge of the historical processes of social change, coupled with our historical insight into the particular factors involved. Can men ever know what Hegel called "the world-historical problem" they are facing? Could the Joan of Arc of the fifteenth century know what the St. Joan of Shaw knows? Or could the Socrates that walked the streets of Athens know what the Socrates of Plato's *Apology* knows?

A "philosophy of history" is just such an attempt to appraise the present in terms of the problems seen to be "world-historical." It is the attempt to be self-conscious about what we are doing. At its best, it is an instrument of analysis, an hypothesis as to what is "dynamic" today. It considers the present in terms of possible action, of the ends implicit in it, and of the means to their attainment. It is an instrument of politics, of social action. It involves a choice among the determinate possibilities of the present, of that tendency or predicted future which we judge to be controlling. But even when the envisaged future is most carefully based on an analysis of present tendencies, rather than on hopes, it remains a faith—hopefully, an intelligent faith—that the future will display a certain character.

How the problems are seen, how the materials and resources are

understood, what skill and abilities are present—these are ultimately intellectual problems. This is the sense in which the ultimate determinism in histories is an *intellectual determinism,* and depends on what men know how to do, the extent of the "social intelligence" available in that society. This is maintained even in Marxism, which makes knowledge controlling now that it has been gained: the Marxian understands, he knows the "correct" decision to make. Thus, on the Marxian analysis, all the "objective conditions" for a revolution were present in the United States in 1933; only the "subjective conditions" were lacking: men did not know it.

The ultimate limit set to action is the state of science available. This will itself be limited by all the other social determinisms. Some may know how to meet the problems, yet their knowledge may not be generally recognized or applied, because of such social conditioning—because of the limits set by the economic setup, the inability to forego a tax reduction, for instance. The economists may know how, the Marxians may know better, and you and I clearly know best of all. But none of us knows how to get others to recognize our wisdom. It is easy to view this unhappy situation as due to the "stupidity" of others, or their "selfishness," or their "class bias," or the "propaganda of the interests," or the "power structure" of our society, or the "capitalistic system," or just "the system." But in the last analysis it is clearly due to our own ignorance—of how to put the Truth across! Here we come to the ultimate limit indeed.

These limits to the operation of human intelligence may indeed be looked upon as "sin." This is excellent for the religious purposes of contrition and penitence: "sin" is one of those unifying connectives or symbols that play so large a part in the techniques of religion, even when the limits are not further personified, as well as unified, as the Devil. But to view these limits collectively as "sin," is, for the sake of understanding them and doing something about them, to commit a fallacy analogous to that of "vitalism" in the case of the seed: to take the determinate outcome of a complex cooperation of factors as an unanalysable "force." This remains in the realm of mere labeling: it is content to give a name to how human nature operates in a specific social situation, without trying to discover the mechanism by which it is led to do it, in the human constitution, and in the way that con-

stitution cooperates with the social structures in our culture. Sin is not unanalysable: it is a unification of the limits set by a complex cooperation of processes, all of which can be broken down. Sin is not a force, but a set of limits. And it has a history: at any given time it is a set of specific and determinate limits, setting definite bounds to what can be done in particular problems. There will always be some limits to what human nature can become—there will always be sin, enough sin to satisfy the prophet or the theologian, enough for him to use for his important religious purposes. But there is no specific limit that is immutable and cannot be pushed back. We can hence look forward to bigger and better sins—or rather, more refined and better sins.

The same holds true of another fashionable unification of these limits to the operation of knowledge, the taking them as the "impulse to power and domination," as Bertrand Russell has done;[1] though this has the advantage over sin that it is not taken as so unanalysable, and can be attributed to the aggressions resulting from a faulty education —probably far too facile an account.

Or these limits may be taken as "ignorance" in general, a symbol in another contemporary gospel, which ignores the social conditioning of that ignorance. "Ignorance" is, to be sure, an ultimate limit, just as "invention" or "discovery" is an ultimate dynamic or cause of social and historical decision, in producing the social changes that generate the problems that force action. But since both ignorance and invention in general lie outside human control, they are useless for any historical understanding, or for any program of action, and hence for any philosophy of history. Like sin, "ignorance" has a history, and is at any given time specific and determinate. Both have meaning in histories, in the present or the past, only as definite limits in particular problems.

The prophet can use "sin," the social scientist and the educator can use "ignorance," each employing his own label for the unification of the limits he encounters, corresponding to his own techniques. In fact, the limits are plural, complex, and constantly shifting. Their unification through such connectives or symbols serves as an instrument

[1] See Bertrand Russell, *Power: A New Social Analysis* (London, 1938), esp. Chapters 1 and 18.

for the functional analysis of problems. By grouping the limits around the major obstacles encountered, they throw into relief the most promising means for dealing with those problems. In terms of the problems, the limits and the resources for dealing with them are separated out and opposed. Thus Dewey insists that we must

> discriminate between the two forces, one active, the other resistant and deflecting, that have produced the social scene in which we live. The active force is . . . scientific method and technological application. The opposite force is that of older institutions and the habits that have grown up around them.[2]

Thus it is not ignorance in general, but a very specific kind of ignorance, that sets limits: technically, ignorance of how to do the particular things that must be done; and politically, ignorance of how to get men to apply the knowledge that experts already possess—itself a problem of political techniques.

Knowledge of methods and techniques is thus the dynamic in all historical decision. No matter what form of action is indicated as the most effective present means of meeting the imposed problems, its use depends upon knowledge—knowledge of the problem, of our resources, and of how to make our knowledge operative with men. And a philosophy of history, using the problem as a focus, will view the past in terms of the operation of that means, or "active force," and of that obstacle, or "deflecting force." Thus historical knowledge, as an instrument of functional analysis today, makes possible an understanding of the present in terms of the factors in a problem: it is essential to "seeing" and "analysing" the problem. Historical knowledge "reveals" the genesis or origin of the problem, points to the active force that is generating a tension, to the points of tension themselves, thus locating the obstacles or "deflecting forces," and also to the instrument for dealing with the obstacles.

II

Let us now turn to the process of *historical decision* itself. This falls into two main parts, the analysis of the way in which problems are generated, and the analysis of the way in which they are confronted

[2] John Dewey, *Liberalism and Social Action* (New York, 1935), p. 77.

and measurably composed. In the first analysis, how problems are generated, we are greatly aided by what has already been accomplished in achieving a scientific treatment of the processes of social change, mainly by the anthropologists. The two processes distinguished as involved in the generation of historical problems are diffusion and invention. *Diffusion* is the getting of new materials, techniques, and ideas from outside a culture. Thus the long assimilation by Western Europe of the successive layers of the thought of the ancient world was a complex process of "diffusion." Or, the spread of Western technology and science to the whole world is a large-scale process of "diffusion." We are at the moment seeing the diffusion of elements of Russian culture throughout the non-European world. This diffusion is always a complex process, varying from sheer imposition to eager adoption. Thus we have the very different incidence in which the Plains Indians took from the Europeans Christianity, the horse, firearms, and firewater. In the Oriental cultures, on the other hand, certain Western ideas, like nationalism, have had much greater appeal than even Western techniques of production.

Invention is the discovery, from resources within a culture, of new ways of meeting old problems. Often, in fact, inventions are produced which only then suggest their quite unintended uses—consider the discovery of new metals or chemical substances, whose possibilities then remain to be explored. The classic instance of an invention whose uses had to wait a generation to be found out is the sulfa drugs.

Both diffusion and invention are "active forces," creating tensions when they bump into obstacles or "deflecting forces." Invention is the ultimate "dynamic"—the discovery of how to do something new. In this sense, it is the ultimate "efficient cause" of social change, which is hence intellectual, located in the "intellectual organization" of a culture. Invention is the "ultimate cause" of generating problems. It is not the ultimate cause of resolving them. What is ultimate for such resolving, that is, for "historical decision," is the pushing back or removing of the "deflecting forces." This is a "political" problem, of getting men to act together in new ways.

In the Marxian analysis of social change, new inventions in the field of the "forces of production," in technology, compel men to change the "deflecting force"—in Marxian jargon, the "relations of production"—by political action, by a "revolution" that will "capture the state." Hence for the Marxians the "ultimate" or "basic" cause of "historical decision" is the *political action* that transforms the economic organization of society.

In the analysis of John Dewey, the "ultimate cause" of "historical decision" is the pushing back of the "deflecting force" by an *education* that is essentially *political* in character, and is directed toward getting men to act together in new ways, involving a political change of their institutions.

Both the "revolution" of the Marxians, and the "education" of Dewey, are essentially "political" techniques, on which both rely, together with the more ordinary political processes. Thus in the last analysis, the process of "historical decision," of problem-solving, like that of the generation of problems, depends on knowledge and invention. It is an intellectual problem—specifically, a problem of the political methods and techniques for pushing back the "deflecting" force. This is a crucial intellectual and technical problem today, demanding careful inquiry.

But the science of social change, though it can illuminate the process by which tensions and problems are generated, will not "reveal" which "forces" or organizations of human activities are "dynamic"—apart from the concrete problems of particular histories. Such knowledge demands in addition the historical knowledge of the factors operating in particular cultures. In our own society, these "dynamic" factors are largely "technological," concerned with the Marxian "forces of production." Has this been always true of other societies? Have not new religious ideas proved fully as disruptive in them? Islamic societies exhibit plenty of tensions, but hardly much change in their method of production. Or is Chinese history to be understood primarily in terms of technological change and the resulting economic problems generated?

Even for our own modern society, the Marxian analysis seems far too narrow. Even the invention of material techniques introduces "active forces," dynamic factors, relatively independent of any "forces of production." Consider the printing press; or the invention of contraceptive devices, and the consequent emancipation of women.

Invention takes place in all the social organizations. Thus Luther

and Calvin invented a new technique of salvation outside the medieval Church. This invention was quite as "dynamic" as the various technological changes with which it was bound up. I am not quite sure whether Freud has invented another technique of salvation destined to prove quite as disruptive as Luther's to our inherited techniques.

In the political organization, the invention of representative government during the Middle Ages provoked major repercussions. And the invention of the idea of "nationalism"—that connective for organizing the most powerful emotions of men into a driving force—seems to have been far more dynamic in our world than the idea of industrial technology—even in Russia. There are also the educational techniques of mass literacy and of mass communication, with all they include. This is to say nothing of our achievements in the techniques of destruction, the military techniques that are forcing on us so many new political techniques.

It remains to analyse the process of "historical decision" itself. This really belongs to the "science of social and cultural change," and it has already been suggested that we can learn most about these processes from anthropology, from which we have hitherto drawn our illustrations. Now we shall approach the process of historical change directly, and try to delineate the "historical pattern" of such problem meeting. We shall attempt to get beneath the observable pattern itself to the psychological processes which are its mechanism. Since we are now considering not the mere limiting or determination, but the decision itself, we shall try to find the intellectual, educational, and political patterns involved—the ways of discovering new means, and the ways of getting men to believe together and act together on those means.

A history is always relative to a determinate tendency or direction of movement in the present, pointing to what will eventuate in an envisaged future if that tendency continues to operate—if men continue to act collectively in that way, and if no unforeseen contingencies intervene, the consequence of other ways of acting, or of the actions of other groups—like war, which upsets all predictions, or new discoveries and inventions, the most unpredictable of all factors.

This "most important" or primary tendency is seen as "limited" by a "deflecting force," "held back," prevented from displaying its "real

powers." New ways of acting, which we foresee will be much more effective in the envisaged future than at present, are now restrained and limited by other ways. Their operation is "inefficient," and conceals "unreleased potentialities." Or a new idea is not seen in all its significant implications; men are held back by traditional habits and ways of thinking. Thus "evolution" meant at first primarily a new substitute for Providence; and only later were its more revolutionary intellectual bearings realized. Or the idea of "relativity" in physical theory was initially taken merely as proving the particular philosophy of science already worked out by the taker.

This is fundamental in intellectual history. Ideas have a logical structure of their own, which definitely limits the ways in which they can be pushed. And ideas also have an active power of enticing men onward—that is, men have an active curiosity that leads them to explore ideas when they are not held back by practical considerations. Under rather rare circumstances, men are freed from practice to explore ideas, to undertake what we call a "disinterested" analysis. Thus Spinoza was able to carry to the limit the denial of all potentiality, Leibniz was able to explore the implications of the idea of the great chain of being, Hume was able to push his analysis of the assumptions of the empiricist tradition, Bradley was able to push the presuppositions of the idealist logic.

The "active force" is not only limited by the "deflecting force," it also interacts with it, modifies and changes it. At times—perhaps normally—this process goes on unconsciously, without men being particularly aware of the modifications induced. In this way, humanitarian values crept into religion in the last century, the Presbyterian Church lost the true faith of Calvin, the Catholic Church went American—set the Knights of Columbus side by side with St. Francis, for example. In this way, the status and function of art were "corrupted" by capitalism, in this way the very substance of education was almost wholly lost by the rapid growth of that basic American religion, the faith in education.

Tensions are thus generated, not only *between* the active and the deflecting force, so that the older ways seem increasingly incompatible with the newer ways. The novel ways are themselves "impeded": an

inner tension develops between what men might do and what they can do, which grows intolerable, and becomes a conscious problem for those committed to the new ways. At the same time an inner tension develops in the older ways. Not only are they at odds with the newer ways, not only do they render men unable to deal with and direct the new. The older ways are themselves sufficiently modified to lose their former power to perform their old function. They begin to "decay," they are "corrupted," they have "lost their power to function." And this becomes a conscious problem for those still committed to the older ways.

Since most men concerned are committed to both old and new, the tension between the two, which is generating these other internal tensions in each, becomes a central problem. Practically, men find themselves insecure, in an impasse, in a blind alley, in a state of paralysis, in a breakdown—their ways have disintegrated. Intellectually, they have lost their faith in the old, lost their assurance, their sense of direction given by the old ideas or standards and values—they are disillusioned. But they are unable to accept the new ways or ideas if they do not perform the same function as the old ones did before their disintegration. So men demand practically a new technique or organization of behavior that will do for the new "active force" what the older institutions used to do. Intellectually they demand a new "faith," a new "direction," a new "synthesis," that will fit the "essential values" of the old—that is, the values they are not willing to give up —together with the newer beliefs.

This is the well-publicized "predicament of modern man." Since it has been his predicament for at least seven hundred years, he ought to be fairly used to it by this time, and need scarcely take it as hard as his many self-appointed protectors hope he will.

In every cultural change—in every problem that becomes a focus for a history—four main parties are normally formed. The first are the *drifters,* the indifferent, who are led to "accept" the new without realizing what it really means or demands. They are unwilling to abandon the old and habitual, but they persist in its "forms" rather than in its "substance." Consider the mass of Presbyterian church members; or consider American "educators"—as contrasted with teachers. From the standpoint of any of the other three groups, these drifters are the most

muddled and unintelligent of all. Yet without them there would be no "problem," and no possibility of a "solution"—until such partial assimilation of the new and partial disintegration of the old has taken place. The drifters are the raw material of change; they have to be won over eventually, if the change is to be incorporated in a new cultural pattern.

The second party are the partisans of the new way, or the new idea—the *radicals* or extremists. They see the possibilities in the new "active force," and are impatient at the limits the deflecting force imposes. They are especially impatient with the confusions of the drifters. They may well respect the old ways, and the old ideas, for what they could do when they were new. Psychologically they are apt to resemble the partisans of the old. Thus logical positivists are if anything more dogmatic than metaphysicians—not to mention the many resemblances between Communists and Catholics.

The radicals resemble the reactionaries in taking the problem seriously, with no intention to compromise. They have a "fighting psychology," and techniques: the new is the "one thing needful," the end for which any means is justified. They disregard and sacrifice other values and ends, which neither the drifters nor the mediators are prepared to do; the latter have a broader if less intense sensitivity. But the radicals also feel deeply the same need felt by the reactionaries. They have found something to perform better the same function the old way or idea performed, which they take with equal seriousness. They possess a rival faith offering the same kind of salvation. Hence they are "literal-minded," like the reactionaries; whereas the drifters and the mediators are, as we say, more "imaginative." They are apt themselves to split up through discovering still better techniques—consider the Protestants, or economic radicals: the Marxians, the Trotskyites, and their splinter groups. And they take the new idea, or the new organization of habits, as an answer to the old problem; they do not see that the eventual implication of the new is to make the old problem irrelevant.

The third group are the partisans of the old, the *reactionaries,* attempting to stem the tide, like the Fundamentalists in American religion, or like Mr. Hutchins among American educators—though it is unusual today to find either theologians or college presidents outside

the first group, the drifters. The reactionaries may be shortsighted and blind, but they are usually not muddled. I am not too sure of Mr. Hutchins, however.

The fourth group are the conciliators, the *mediators,* the "statesmen" who work out the new organization of behavior, the "philosophers" who in terms of some new concept or new method, manage to effect a synthesis or adjustment in which the essential values of the old are seen as compatible with the new insight. This group ultimately prevails; it wins over the first group, the drifters, and what they have worked out, or invented, the novel organization of activities or beliefs, proceeds in turn to generate new tensions and to lead to new problems.

Social change normally goes on without much conscious attention. The "active forces" modify the traditional ways of action and belief, and the major changes, in any quantitative sense, are certainly so accomplished, like the thief in the night. They are already largely effected when they become conscious problems. The reactionaries always organize their forces too late; they "succeed" only when they adopt the substance of the demands and methods of the radicals. This happened notoriously with the Catholic Reformation of the sixteenth century, and with the "counter-revolution" in the bourgeois revolution—Napoleon and Metternich equally accorded the basic laisser-faire that the French revolutionaries had demanded. And it is being followed in the reaction of "liberal capitalism," in England and America, against the collectivistic revolution: Mr. Eisenhower and Mr. Macmillan alike accept the "welfare state." When the changes have become conscious problems, then the generation of tensions and problems is seen in terms of past "continuities," of gradual changes, explicable in terms of the past, of history.

The dramatic or "qualitative" changes in history—the dramatic reorganizations of ways of acting, or of ideas—the "mutations," the "renaissances" or "revolutions"—are effected in various ways in the different social organizations. In science we have developed a technique, so that it is normal and accustomed that the fourth group should prevail. When a tension develops between accepted scientific theory, and a specific hypothesis worked out to account for newly discovered facts,

there is little taking of sides—though there *is* such a thing as scientific controversy between the radicals and the reactionaries: the classic instance is to be found in the life of Pasteur.[3] Rather, the invention of a new theory is expected and waited for, which shall include both—as in the classic instance of the development of wave-mechanics to deal with all the discrepancies about light and quanta emission.

In philosophy, which confronts new conceptions of "science" or intelligibility itself, the parties enumerated are normally found, and the philosophical revolutions are thus worked out. The classic examples have been the acceptance of Aristotelian science in the thirteenth century, of the mathematical order of nature in the seventeenth century, of Romantic social science in the early nineteenth century, and of evolutionary science in the late nineteenth century.

In practice—in politics, or in the social control of the processes of technology—the fourth group is often lacking: there is no invention of a new organization of behavior. The particular problems of conflict between the new ways and the old, and of the group interests bound up with them, are normally adjusted in detail. The adjustments register the balance of the different tensions. They are the work of "politicians," who differ from "statesmen" in their inventiveness, and in the breadth of their compromises and reorganizations. Most men, that is, most groups, see the particular problems and tensions to be relieved, not as unified, not as parts of a "broader conflict," or of an "historical movement." They have no "philosophy of history"; they are drifters, "mere opportunists." To both the second and third groups, they appear as mere "appeasers."

If the tension can be thus relieved in detail through the political process, the "active forces" go on operating through a series of compromises. We call this "collective bargaining," or "the democratic method." It achieves a balance of the self-interest of the different groups concerned, in terms of the strength of their desire to do what they want to do, of their compulsion to do it, and of their "effective power." The success of this process depends upon the enlightenment of its participants: on how far they see the limits set by the forces involved, both "active" and "deflecting," upon how far they know how to get the most

[3] See René Vallery-Radot, *Life of Pasteur.*

under such conditions, without provoking new tensions, broader and more acute—thus increasing the forces mobilized against them—that is, it depends upon their political skill.

This process of political adjustment is possible, to the extent that all tensions and conflicts are made subject to collective bargaining or political compromise. Whenever that is not the case, the tensions increase and tend to become unified. The second and third groups then gain at the expense of the first. There then develops a general conflict between the active forces and the reactionaries. Such a unified conflict is of course the complete failure of political techniques. It has occurred only once in American experience, in 1861. But the lack of such technical skill—the failure of democratic methods—is most conspicuous in international bargaining today. The ignorance of Western diplomacy, under the moralistic conduct of Mr. Dulles, its complete lack of knowledge of how to effect democratic "collective bargaining," the readjustment of effective national interests, or even of how to establish the conditions of such a process, are only too apparent today. But the failure of political methods is obvious wherever a unified conflict develops—a genuine "class conflict," for example.

In such a situation, "political success" occurs when one side "wins out," and what had previously been excluded from discussion or compromise is now open to it. The process of dealing with specific tensions can be carried on once more. There are new "alignments," new organizations, new legislation, fresh "invention," the "releasing" of the powers of the "active force," a modifying of the limits and an adapting them to the active force, a setting of new limits, a general "catching up."

The most drastic social revolutions occur when the complete decay and breakdown of the older ways gives the radicals, the third group, a relatively unimpeded scope. But it is not the revolutionaries who become the reorganizing statesmen: it is not the Jacobins, nor the Old Bolsheviks, but the mediators, the fourth group. The Revolution is organized by the "son-in-law" of the Old Régime; the Revolution is "corrupted"—i.e., it has to take account of limits.

For a revolution—or an international revolution, a war—leaves all the problems of readjustment and reorganization still unsolved, and

still to be worked out. At most, it decreases the power of the "deflecting forces"—by introducing new ones.

Or a new religion is proclaimed, a new prophet delivers his message, expressing the "active religious force" of his times. Then the priests and theologians proceed slowly but surely to incorporate once more all the old wisdom. Is this a "corrupting" of the new religion, or is it an enriching?

In the new synthesis effected by the mediator or statesman, what is the relative force of the new and the old? In its appeal to men, what is tough, and has to be given its due? It is clear that technology is very tough, and has an irresistible appeal: this is our modern insight. Technology will in the end force an adaptation to its demands. In any modern technological culture, it forces on men a very similar pattern of adaptation, no matter what their social "theories" or "principles." Science is likewise very tough, and demands that men's other beliefs be harmonized with it. This is especially true of the science that is the folklore of a technological culture, and is itself largely a technique and a know-how. Science that merely gives understanding, that is "theoretical," is much weaker: and social theory that is not indispensable for policy-making is weakest of all. One has only to compare what happened to the theoretical structures of German social scientists under the Nazi dispensation, with the way their practical techniques of financing and influencing opinion were seized on and fostered.

This analysis has been generalized from intellectual and cultural histories. There is hence the temptation to assume that human history is a "logical" process, as Hegel concluded. It is therefore well to insist that in ways of acting, in political behavior, there are no logical incompatibilities, and no logical reconciliation is needed when a new way is incorporated. There is no present organization or way of behavior that cannot, if need be, be adapted to any other—even though the ideas in which the two are now thought of may seem to be incompatible. Even with beliefs, there are no two that are ultimately logically contradictory and cannot be entertained by the same mind and held together in a socially accepted synthesis, if the urge to do so be strong enough. There are plenty of psychological incompatibilities between older beliefs and new ones. But in the long run there are no

two that cannot be "reconciled," either by making the necessary distinctions, or by finding some further postulate that will bring them together. Such is the power of the human mind, as one contemplates its past and present achievements in reconciliation.

III

The actual focus of any history is a problem that has been generated by a tension developed between newer and older human ways of acting and believing. It will thus normally be a problem of reorganizing human behavior or beliefs—of effecting some adjustment between ways of acting or believing that have come into conflict.[4] It will be a problem of human relations and attitudes, of getting men to apply and act on the knowledge and techniques that are available, and not one of inventing new ideas or techniques within the specific fields where tension is creating problems. In so far as invention of this latter kind succeeds in relieving the tension, that tension does not become a conscious and unified problem, and that invention will then enter into the historical continuity of other problems. Thus if new scientific knowledge comes into conflict with traditional moral values, as over the invention of contraceptive techniques, or of psychotherapy, that conflict will be solved, not by more scientific knowledge, but by intellectual adjustment on another level—by philosophic criticism and reconstruction, and by political adjustment, by shifts in the political power of different groups, as reflected in legislation.

The problems that serve as the foci of histories are thus human rather than technological. Medicine, for example, is an art; and hence technical factors, medical problems and discoveries, are central in its history. This is indeed all that the usual "histories of medicine" deal with; they are interesting enough as chronicles or annals. But the real history of medicine as an art is the history of medical practice: of the way in which the knowledge available to the medical profession has been made available to different groups in society. There is one history of the achievement of an increasing group intelligence within the medical profession, of the solutions achieved to technical problems by which

[4] The Marxian insight can be so generalized and stated in psychological terms, as Karl Mannheim managed to do after his coming to England. Cf. his *Man and Society in an Age of Reconstruction* (New York, 1940).

any physician today, however mediocre personally, knows how to do vastly more than any doctor of a century ago, however able as an individual, and is thus markedly more "intelligent," medically speaking. But medicine has a more fundamental history, the "medical history of our society," of the relative failure to make that professional or group intelligence a genuinely "social intelligence," with a focus in our problem of the wider "socialization" of medical practice.[5]

Or religion, another art, has likewise a complex technical history—of the techniques of worship, liturgy, iconography, etc.; of the technique of social organization, church polity, etc.; of the techniques of organizing beliefs, theology and philosophy; of the techniques of salvation, the insights of its prophets. All these technical histories, like any such, are histories of its present resources and materials, and instruments for analysing them. But the basic history of religion is of its getting men to accept its techniques and know-how: the history of its rise and spread and fortunes, of its appeal and missionary success, of how it organized human actions, feelings, and beliefs, and what happened to it in consequence.

Thus intellectual history in general is usually taken as the history of the genesis of our ideas, of the thinkers who worked them out, and how they confronted their intellectual problems—that is, as a technical history. But more fundamentally, intellectual history would be concerned with how those ideas came to be adopted, how they influenced men's other beliefs and actions, what tensions they created, what problems they generated, and to what further new ideas they led. It would become the intellectual history of a culture, the history of the social function of intellectual change. It would consider the social problems that led men to work out new ideas, the social determinations that channeled their efforts in certain directions, rather than others, the tensions they generated, and the consequences that developed when men were freed from social determinations to elaborate the implications of the ideas.

The selective problem thus becomes ultimately one of enlisting cooperative group action—of getting men to *act together* in new ways. It is thus a *political* problem. The focus of an intellectual history becomes specifically the problem of getting men to *believe together* in

[5] In the American scene this presumably does not mean "state medicine."

new ways. It is thus an *educational* problem. The conscious problems that serve as foci for histories because they are goals of action, are thus political or educational. Since they normally involve reorganizations of both actions and beliefs, they are usually both. By "educational problems," getting men to believe something new together, I do not of course mean mere schooling, though I am far from pessimistic about what schools can do. American schools are far from being the most conservative of all social institutions, as European schools are on the whole—indeed, the preservation of *something* of the past is precisely their most difficult problem. But the fundamental reorganization of beliefs is a matter of "political education," getting men to share new ideas as a basis for action. And such political education is probably best generated by common action and common concern with common problems. That is why professional or vocational organization is so important for such political education, since a man's profession involves his deepest and most sustained common action, and generates his most persistent habits. The greatest advance in such political education would be effected if every one were expected to join a union.[6]

The central place of such political education makes it clear why on the one hand appeals for "good will" and preaching seem so futile. What is needed is not good will alone, but new ideas and new behavior. And it makes clear on the other hand why calls for "more social science" or for a "more adequate social science" seem likewise to miss the point. What is needed is not so much more knowledge, as to get men to apply the knowledge and techniques already "available," but locked up in a small group of "experts," while the mass of men cannot apply, or even accept and understand, that knowledge, because the many social determinations prevent them from doing so.

Of course, such "political education" may well be considered as itself presenting a technical problem: it is dependent on the knowledge how best to get men to apply the knowledge that is available. Such techniques can obviously be made the object of intensive inquiry and investigation. It is clearly nonsense to say, our social science, or our "social intelligence," is of no avail, because of men's "sin," or their

[6] I should be a syndicalist on purely educational grounds, even were there not so many compelling economic reasons for that form of organization in America.

"drive for power," or their "irrationality," or their "group economic interests," or their "class bias," or any of the other excuses we make to ourselves. These facts of human behavior are just the "deflecting forces" any social science or social intelligence worth its salt would learn how to deal with! Such techniques for reorganizing beliefs and behavior will doubtless be very different from the techniques for dealing with natural materials; but such a genuine "social technology" is obviously of fundamental importance. How can men's actions and beliefs be best consciously reorganized? What obstacles are too hard to attack directly, which it would be better for the present to accept? Which are most easily modified? What is the best leverage? A genuine social science would have a central concern with these fundamental problems of political education, and with the methods for solving them.

Since the methods of "political education" are thus basic for the problems of history, the history of the *methods* of adjusting and reorganizing habits does seem to possess a kind of ultimacy. In social history it is the problems of political method and techniques that furnish the central organizing foci. And in truth British historians are apt to make the techniques of liberty and of parliamentary government central; Marxian historians, the method of the class struggle; German historians, their own distinctive political devices; and American historians, the "democratic method." For the same reason, in intellectual history philosophy has always seemed to present the basic organizing foci. For philosophy *is* the method of criticising and reorganizing beliefs, and the philosophic problems of adjusting different ideas to each other are obviously analogous to the political problems of adjusting different ways of acting.

At his proudest the philosopher is the statesman of ideas, organizing some new synthesis of intellectual materials, within whose novel constitutional framework men can henceforth carry on their intellectual pursuits. At his humblest he is the politician of ideas, effecting through his analyses compromises and working-agreements to live and let live. It is because the starting-point of the philosophic enterprise is the adjustment of intellectual tensions and conflicts, that the *history* of philosophy finds its focus for understanding to lie in problems of method, rather than in their culmination and fruit in imaginative vision. The *history* of philosophy is thus the history of the working

out, the development, the application, and the refinement of intellectual methods. And this is likewise why the method of philosophic criticism and reconstruction, though it is always very intimately bound up with the prevailing "scientific method," is never wholly exhausted in it, but always retains something of the art of the politician of the mind.

IV

The present which we use our historical knowledge to understand we have found to be "problematic": it is full of "tendencies" big with the future, forces "dynamic" in the sense that they hold powers not now in operation, potentialities that promise more drastic modifications in the future. The present is thus full of tensions that are increasing. In the envisaged future, we predict, they will have grown intolerable, and will have to be faced. The present tension points to a future crisis: it is thus that problems are forced on us. An excellent illustration is the title of a recent book on religion: *Five Minutes to Twelve*. As Dr. Faustus found out, history is always understood at 11:55 P.M.; or else at five minutes before sunrise. Hegel was all wrong about the twilight: the only historians abroad then are—just owls.

Sub specie aeternitatis, or in the eyes of the Man in the Moon, it is more likely that we are at "two A.M. on a moderately blowy night," as James Harvey Robinson used to say. He saw mankind as just beginning to emerge from the great apes, and hence could view its history as "the human comedy." This attitude Robinson shared with his dearest enemy, the Church. I remember questioning a priest at the time Hitler's legions were tramping into Austria. "Oh, that will come out all right," he said, "things were really much worse in the times of Clovis." But that is obviously not the way to understand history, and certainly not the way to do anything about it. That is not the philosophy of history: that is just plain philosophy! There are times when even a philosopher of history would do well to take time off from his tragic posturing, and be "philosophical."

That is the way to "see" and to "accept" history; it is not the way to "understand" it. History is understood at 11:55 P.M.—"it is later than you think." That is, it is understood in terms of an imminent crisis. Even when we are in the midst of a present crisis, with its intolerable tensions, we understand the crisis in which we are acting in terms of a future more decisive crisis. We understood what was going on in Asia, we said, not as the mere conflict between Japan and the Western powers that was actually taking place, but in terms of the prediction, "The day of the white man in Asia is over." We understand the present Suez crisis in terms of the Russian control of the entire Arab world. We may not be "right" in our "understanding." We are never fully conscious of what later turn out to have been the "world-historical problems." But the point is, that is the way we *do* understand our history: we understand even our own present crises and conflicts in terms of a future crisis.

This is certainly true of the more elaborated "philosophies of history." They are always worked out at the eleventh hour, and provoked by some acute tension. We understand the fall of Rome to the Goths, with Augustine, in terms of the defeat of the Earthly City. We understand the corruption of Prussia, with Spengler, in terms of the decay of Faustian culture. We understand the French Revolution, with Condorcet, in terms of the final conflict between enlightenment and superstition. We understand the crises of capitalism, with Marx, in terms of the class struggle that will finally usher in the classless society. Is there any major philosophy of history that does not follow such a pattern? Is there any that is not, in this sense, "tragic"? The cyclical, the linear, the evolutionary ways of understanding history we do not today judge to be philosophies of history at all. They are "unrealistic," we say; they have not seen the real problems.

Historical knowledge of the past not only reveals how the tensions and problems came about; it explains the present by serving as an instrument of analysis. Problems seemingly unrelated in the present are unified in the light of their histories. Institutions that are "historically definable natures" are unified in the light of the problems they have generated. But historical knowledge is not only an instrument for analysing problems. It is also a tool for analysing the materials and resources with which we can face them. And like all understanding of means, this involves the evaluation of those means, for which history furnishes much, if not all, the necessary data.

In general, in the analysis of present materials historical knowledge reveals the genesis of what has some function or use, by taking us to

the problematic situation in which it was worked out. Historical continuity alone will suffice to explain the presence in the present only of what has no use, and has survived by the sheer persistence of habit. History explains the toughness of what once had a use, and is now refractory to a changed function, generating a new tension: the obstacles or "deflecting forces." Our science explains the success of the active forces, why new ideas and techniques enable men to do what they do. History explains the conditioning forces, why we find limits set to the possibilities of our materials, why it takes so long to bend them to new uses. And history is a liberating and emancipating device, a potent intellectual technique of "political education," modifying those limits. It has always been uniformly so used, by an Einstein, or a Dewey, by any new program or movement. It can "show up" the past, and reveal the persisting deflecting forces for what they are. It discloses what they were designed to do, their original function, and focuses attention on any change in function demanded. It destroys "unreal issues" and "academic problems," which because they are no longer performing their earlier function have been perverted and prostituted by vested interests. But it condemns nothing that is not clearly damnable. The history of materials is not itself an evaluation: nothing is good or bad today merely because it has been. But it can make clear that fresh evaluation is necessary; and it provides many, though not all, the data necessary for that fresh appraisal.

But it were well not to forget, as Santayana says, that the function of history is to lend materials to poetry as well as to politics: "A good book of history is one that helps the statesman to formulate and to carry out his plans, or that helps the tragic poet to conceive what is most glorious in human destiny."[7] We might add, the comic poet as well, for history in general, and the history of ideas in particular, reveals just as much "the human comedy" as the human tragedy. History is understood for enjoyment as well as for use, for the visions and achievements it discloses as well as for its record of problem-solving and historical decision—for what the Father of History called "its great and wonderful deeds."

That revelation of achievement may well be the most significant gift of the past. Even today history appeals to men primarily as poetry, as a revelation of human nature: witness the present vogue for biography, expelled from our critical histories. For it is after all men with whose histories men are primarily concerned.

[7] George Santayana, "History," in *Reason in Science* (New York, 1905), p. 66.

The philosopher is not merely the statesman of ideas, he is also the poet of the mind. And his great imaginative achievements—the dialectic of a Plotinus or a Hegel, the architecture of a Thomas or a Spinoza, the symbolic logician's world of pure form—exert an eternal appeal quite apart from any use they may find in our problem-solving. It is no accident that the major philosophers, though they start as statesmen or even as politicians of ideas, have ended as poets—such imaginative vision is indeed necessary to their majority. The great philosophies of history, like those of Saint Augustine or of Karl Marx, whatever incidental practical utility they may offer as instruments of analysis and as dynamic drives, surely find their most enduring value as poetry and not as politics—not even as the politics of salvation. I am even prepared to assert that the ultimate "dynamic" in history is just such vision; that the most powerful technique for getting men to act and believe together in new ways is a vision of God, a revolutionary idea. The effects, however, are so uniformly bad, that I am inclined to attribute this unfortunate fact about human nature to original sin. The vision of the great philosophies of history has about it much of the demonic!

It may well be true that the ultimate value of historical knowledge is the vision of man's history itself—the true θεωρία of history: of man as ever engaged in conflicts and insistent problems, each new one, though at the time it seem a crisis in the universe, but one more incident in a long series, with an endless chain yet to come—that θεωρία that makes comedy more ultimate than tragedy, and takes mankind beyond the tragedies of men.

But though visions be of transcendent importance, and to view the past as the record of human vision may well be the most significant way of regarding it, as it is certainly the major source of its undying appeal—it is not by vision that visions are understood. And whether the materials of our past are to be used as means in our problems, or, more significantly, to be enjoyed as works of art, they are to be understood in the same way: in the light of their histories, of the past problems that led men to create them and leave them for our ends.

NATURE AND HISTORICAL EXPERIENCE

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and in
The Theory of History

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sophic inspiration, as well as repeated practical assistance, I owe one more debt which I can never hope to repay.

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