

Introduction to the Human Sciences

Source: Introduction to the Human Sciences, publ. Princeton University Press. From the beginning a few dozen pages.

Preface

This work, the first half of which is now being published, will combine a historical approach with a systematic one in order to attain as much certainty as possible about the philosophical foundations of the human sciences. The historical approach traces the developmental path of philosophy's previous efforts to provide such a grounding; it seeks to determine the historical setting of individual theories within this development and to assess the historically conditioned value of these theories. Indeed, by penetrating this developmental nexus, the historical approach seeks to determine the innermost impulse of contemporary science. In this way the historical account prepares the ground for the epistemological foundation, which will be the theme of the second half of this study.

Since the historical and systematic accounts are to supplement each other in this manner, the historical part will perhaps be easier to follow if I indicate in advance the fundamental systematic ideas.

The emancipation of the particular sciences began at the end of the Middle Ages. However, the sciences of society and of history retained their old subservient relation to metaphysics for a long time - well into the eighteenth century. In addition, the increasing power of the knowledge of nature subjugated them in a new manner, and no less oppressively. It was the Historical School - taking that term in its broadest sense - that first brought about the emancipation of historical consciousness and historical scholarship. The French system of social thought developed in the seventeenth and eighteenth centuries. Its ideas of natural law and natural religion, and its abstract theories of the state and of political economy, manifested their political consequences in the Revolution when the armies of that revolution occupied and destroyed the ramshackle, thousand-year-old edifice of the Holy Roman Empire. At the same time, the view developed in Germany that historical growth is the source of all spiritual facts - a view which proved the falsity of that whole French system of social thought. This insight was shared by Winckelmann and Herder, the Romantic school, Niebuhr, Jakob Grimm, Savigny, and Boeckh. It was strengthened by the reaction against the Revolution. In England, it was promoted by Burke, in France by Guizot' and de Tocqueville. In all the conflicts of European society, it challenged eighteenth-century ideas about law, government, and religion. The Historical School was characterised by a purely empirical mode of observation, sympathetic immersion in the details of the historical process, a universal approach to history aiming to determine the value of a particular state of affairs solely from the context of its development. This school considered spiritual life as historical through and through and approached social theory historically, seeking the explanations and rules of contemporary life in the study of the past. New ideas flowed from it through countless channels into all the particular disciplines.

However, even today the Historical School has not yet succeeded in breaking through the inner limits which have necessarily inhibited its theoretical development and its influence on life. Its study and evaluation of historical phenomena remain

unconnected with the analysis of facts of consciousness; consequently, it has no grounding in the only knowledge which is ultimately secure; it has, in short, no philosophical foundation. Lacking a healthy relationship to epistemology and psychology, this school has not attained an explanatory method. Historical vision and comparative procedures by themselves are incapable of establishing an autonomous system of the human sciences or of exerting any influence on life. When Comte, John Stuart Mill, and Buckle made a new attempt to solve the riddle of the historical world by borrowing principles and methods from the natural sciences, the Historical School could only protest ineffectually against their impoverished, superficial, but analytically refined results by appealing to a more vital and profound intuition which, however, it was unable either to develop or to ground. The strong hatred and crude language with which Carlyle and other vigorous minds opposed exact science were symptomatic of the situation. And amidst such uncertainty about the foundations of the human sciences, some scholars retreated into mere description, some remained content with brilliant but subjective interpretation, and others returned to a metaphysics that promised, to those willing to believe, principles with the power to transform practical life.

In light of this state of the human sciences I have undertaken to provide a philosophical foundation for the principle of the Historical School and for those modes of research into society currently dominated by that school; this should settle the conflict between the Historical School and abstract theories. In my own work I was troubled by questions which face every thoughtful historian, student of law, or political theorist. Thus there arose in me both a need and a plan for the foundation of the human sciences. What is the system of principles which provides a basis for the judgments of the historian, the conclusions of the political economist, and the concepts of the jurist, and which at the same time assures their certainty? Must such a system be rooted in metaphysics? Is a system of natural law or a philosophy of history supported by metaphysical concepts possible? But if it can be shown that they are not possible, then where is the firm support for a system of principles that connects the particular sciences and provides them with certainty?

The answers given to these questions by Comte and the positivists and by J. S. Mill and the empiricists seemed to me to truncate and mutilate historical reality in order to assimilate it to the concepts and methods of the natural sciences. The reaction against their approach - an inspired example of which is Lotze's *Microcosmus*, - seemed to me to sacrifice the legitimate independence of the particular sciences, the fruitful power of their empirical methods, and the certainty of their foundation to a subjective and sentimental mood which seeks nostalgically to recall by means of science a mental satisfaction that has been lost forever. Only inner experience, in facts of consciousness, have I found a firm anchor for my thinking, and I trust that my reader will be convinced by my proof of this. All science is experiential; but all experience must be related back to and derives its validity from the conditions and context of consciousness in which it arises, i.e., the totality of our nature. We designate as "epistemological" this standpoint which consistently recognises the impossibility of going behind these conditions. To attempt this would be like seeing without eyes or directing the gaze of knowledge behind one's own eye. Modern science can acknowledge no other than this epistemological stand-point. It became further evident to me, however, that it is from just this standpoint that the independence of the human sciences, as demanded by the Historical School, can be grounded. From this standpoint our conception of the whole of nature proves to be a mere shadow cast by a hidden reality; by contrast only in the facts of consciousness given in inner experience do we possess reality as it is. The analysis of these facts is the central task of the human sciences. Thus, in accordance with the spirit of the Historical School,

knowledge of the principles of the human world falls within that world itself, and the human sciences form an independent system.

Although I found myself frequently in agreement with the epistemological school of Locke, Hume, and Kant, I nevertheless found it necessary to conceive differently the nexus of facts of consciousness which we together recognise as the basis of philosophy. Apart from a few beginnings such as those of Herder and Wilhelm von Humboldt, which were not scientifically developed, previous epistemology - Kant's as well as that of the empiricists - has explained experience and cognition in terms of facts that are merely representational. No real blood flows in the veins of the knowing subject constructed by Locke, Hume, and Kant, but rather the diluted extract of reason as a mere activity of thought. A historical as well as psychological approach to whole human beings led me to explain even knowledge and its concepts (such as the external world, time, substance, and cause) in terms of the manifold powers of a being that wills, feels, and thinks; and I do this despite the fact that knowledge seems to be woven of concepts derived from the mere contents of perception, representation, and thought. Therefore, I will use the following method in this book: I will relate every component of contemporary abstract scientific thought to the whole of human nature as it is revealed in experience, in the study of language, and in the study of history, and thus seek the connection of these components. The result is that the most important components of our picture and knowledge of reality - our own personality as a life-unit, the external world, other individuals, their temporal life and their interactions - can be explained in terms of this totality of human nature. In the real life-process, willing, feeling, and thinking are only different aspects. The questions which we all must address to philosophy cannot be answered by the assumption of a rigid epistemological a priori, but rather only by a developmental history proceeding from the totality of our being.

With this the most obstinate riddle related to this foundation seems to find its resolution, namely, the question of the origin and justification of our belief in the reality of the external world. From the perspective of mere representation, the external world always remains only a phenomenon. On the other hand, for the whole human being who wills, feels, and represents, external reality is given simultaneously and with as much certitude as his own self. That which is independent of us, whatever its spatial characteristics, is thus given as part of life, not as a mere representation. We know his external world not by virtue of an inference from effects to causes or some corresponding process. Rather, these representations of cause and effect are themselves only abstractions from our volitional life. The horizon of experience, which initially seemed to give information only about our own inner states, thus expands, for an external world and other life-units are given together with Our own life-unit. Yet the extent to which I can demonstrate this and succeed in establishing a secure system of knowledge about society and history on the basis of this standpoint must be left to the reader's subsequent judgment about that foundation itself.

I will go into some detail in order to connect the main ideas and principles of this epistemological foundation of the human sciences with the various directions of contemporary scientific thought, and thereby to establish those principles more than once. In Book One, I begin with a survey of the particular human sciences which provide the extensive material and the impulse for this work, and shall then argue regressively from them. In Book Two, I consider the history of philosophy insofar as it seeks a firm foundation for knowledge up to the time that the fate of metaphysical foundations was decided. I will attempt to show that the search for a universally recognised metaphysics was conditioned by a state of the sciences which we have left behind us, and consequently that any metaphysical grounding of the human sciences is a thing of the past. The second volume will begin by tracing historical

developments in the age of the particular sciences and of epistemology, and it will describe and evaluate epistemological inquiry up to the present (Book Three). I will then proceed to my own epistemological foundation of the human sciences (Books Four and Five). The detailed character of the historical part of this work derives not only from the practical need for an introduction but also from my conviction about the value of historical reflection together with epistemological self-reflection. The same conviction has manifested itself for several generations in a persistent predilection for the history of philosophy, and in the efforts of Hegel, the later Schelling, and Comte to ground their systems historically. The legitimacy of this conviction will become still more clear from the perspective of developmental history, for the history of intellectual development allows us to observe in the bright light of the sun the growth of a tree whose underground roots must then be examined by epistemology.

Since my task has led me through very diverse fields of knowledge, various errors will have to be excused. I can only hope the work will, to some extent, fulfil its task of unifying the essential historical and systematic insights which the jurist and the politician, the theologian and the historian need as a foundation for successful study in their particular disciplines.

This first volume will appear before I have discharged an old debt - that of finishing my biography of Schleiermacher. After completing preparatory studies for the second half of that work, I realised that the exposition and critique of Schleiermacher's system presupposed an investigation into the ultimate questions of philosophy. Thus the biography was set aside until the appearance of the present work, which will then spare me such an investigation there.

Chapter 1 The Aim of This Introduction to the Human Sciences

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Ever since the appearance of Bacon's celebrated work, various treatises discussing the foundation and method of the natural sciences have been written-especially by natural scientists who thereby introduce us to the study of their sciences. The best-known of such introductions is that of Sir John Herschel. For those concerned with history, political theory, jurisprudence and economics, theology, literature and art, there is also a need for someone to perform a similar service. Those occupied with these disciplines have customarily approached them in terms of the practical needs of society, i.e., in terms of the professional training through which the guiding institutions of society are furnished with the information necessary for their tasks. However, such professional training will enable an individual to achieve excellence in his work only insofar as it goes beyond merely technical training. For society is like a great factory kept going by the services of countless persons; and someone who has acquired only the isolated techniques of his particular occupation, no matter how consummately he has mastered them, is in the situation of a worker who has spent his whole life at a single point of this operation without knowing the forces that set it in motion and, indeed, without having any idea of the other parts and their cooperation for the purpose of the whole. Such a person is a serviceable tool of society but not a conscious co-agent of its formation. This introduction to the human sciences is intended to aid all those whose lifework is devoted to society - politicians and

lawyers, theologians and educators - in coming to know how their guiding principles and rules relate to the encompassing reality of human society.

The nature of the subject matter requires the application of insights extending back to truths which ground not only our knowledge of the socio-historical world, but also our knowledge of nature. Thus formulated, this task, though rooted in the needs of practical life, coincides with a problem posed by the state of pure theory.

The sciences which take socio-historical reality as their subject matter are seeking, more intensively than ever before, their systematic relations to one another and to their foundation. Conditions within the various positive sciences are working in this direction together with powerful forces stemming from the upheavals in society since the French Revolution. A knowledge of the forces that rule society, of the causes that have produced its upheavals, and of society's resources for promoting healthy progress has become of vital concern to our civilization. Consequently, relative to the natural sciences, the importance of the sciences dealing with society is increasing. On the large scale of modern life, a transformation of our scientific interests is taking place comparable to that which occurred in the small Greek city-states in the fifth and fourth centuries B.C., when upheavals in those states engendered the negative natural-law theories of the Sophists and, in opposition to them, the works of the Socratic school concerning the state.

Chapter 2

The Human Sciences Form an Independent Whole alongside the Natural Sciences

All the disciplines that have socio-historical reality as their subject matter are encompassed in this work under the name "human sciences." The concept underlying these sciences by virtue of which they comprise a whole, and the delineation of this whole over against the natural sciences, can ultimately be clarified and justified only in the body of this work itself. At this point, we will merely establish the sense in which we use the term and point in a preliminary fashion to that complex of facts on which the distinction between the natural sciences and this unified whole of the human sciences is grounded.

By a "science" we commonly mean a complex of propositions (1) whose elements are concepts that are completely defined, i.e., permanently and universally valid within the overall logical system, (2) whose connections are well grounded, and (3) in which finally the parts are connected into a whole for the purpose of communication. The latter makes it possible either to conceive a segment of reality in its entirety through this connection of propositions or to regulate a province of human activity by means of it. The term "science" is here used to designate any complex of mental facts which bears the above characteristics and which therefore would normally be accorded the name "science." Accordingly we define the scope of our task provisionally. That which has developed in the course of human history and which common usage has designated as "the sciences of man, of history, and of society" constitutes a sphere of mental facts which we seek not to master but primarily to comprehend. The empirical method requires that we establish the value of the particular procedures necessary for inquiry on the basis of the subject matter of the human sciences and in a historical-critical manner. The nature of knowledge in the human sciences must be explicated by observing the full course of human development. Such a method stands in contrast to that recently applied all too often by the so-called positivists, who derive the meaning of the concept of science from a definition of knowledge which arises from a predominant concern with the natural sciences. On the basis of that concept, they determine which intellectual occupations

merit the name and status of science. Thus on the basis of an arbitrary concept of knowledge, some have shortsightedly and presumptuously denied the status of science to the writing of history as it has been practiced by great masters, and others believed it necessary to transform those disciplines which are founded on imperatives, rather than on judgments about reality, into cognitive sciences of reality.

What is contained in the concept of science is generally divided into two subdivisions. One is designated by the name "natural science," while for the other there is, curiously enough, no generally accepted designation. I shall follow those thinkers who refer to this second half of the *globus intellectualis* by the term *Geisteswissenschaften*. In the first place, this designation is one that has become customary and generally understood, due especially to the extensive circulation of the German translation of John Stuart Mill's *System of Logic*. This term seems the least inappropriate among the various from which we can choose. To be sure, the reference to the spirit (*Geist*) in the term *Geisteswissenschaften* can give only an imperfect indication of the subject matter of these sciences, for it does not really separate facts of the human spirit from the psychophysical unity of human nature. Any theory intended to describe and analyze socio-historical reality cannot restrict itself to the human spirit and disregard the totality of human nature. Yet this shortcoming of the expression *Geisteswissenschaften* is shared by all the other expressions that have been used: *Gesellschaftswissenschaft* (social science), *Soziologie* (sociology), *moralische* (moral), *geschichtliche* (historical), or *Kulturwissenschaften* (cultural sciences). All of these designations suffer from the same fault of being too narrow relative to their subject matter. And the name chosen here has at least the advantage of appropriately characterizing the central sphere of facts in terms of which the unity of these disciplines was actually perceived, their scope outlined, and their demarcation from the natural sciences established, no matter how imperfectly.

The practice of regarding these disciplines as a unity distinct from the natural sciences is rooted in the depth and totality of human selfconsciousness. Even before he is concerned to investigate the origin of the human spirit, man finds within his self-consciousness a sovereignty of the will, a responsibility for actions, a capacity for subjecting everything to thought and for resisting, from within the stronghold of his personal freedom, any and every encroachment. This differentiates him from the rest of nature. He exists in nature as a realm within a realm - *imperium in imperio*, to use an expression of Spinoza. And since only that exists for him which is a fact of his consciousness, every value and every purpose in life lies in this independent world of mind active in him - the goal of his every act is to produce spiritual facts. Thus from the realm of nature he distinguishes a realm of history, in which, amidst the objective necessity of nature, freedom is manifested at countless points. In contrast to the mechanical course of natural change which at the outset already contains everything that follows from it, acts of will exert force and involve sacrifices, whose meaning is evident to the individual in his experience and which actually produce something. Acts of will generate a development in the person and in mankind that is more than the empty and tedious recapitulation in consciousness of the course of nature which was once celebrated by the idolaters of intellectual development as the epitome of historical progress.

Metaphysicians, who took this difference of explanatory ground to entail a substantial difference in the objective structure of the world, struggled in vain to formulate and legitimate the objective basis for distinguishing facts of spiritual life from those of nature. Ancient metaphysics underwent many changes at the hands of medieval thinkers who brought it in line with the dominant religious and theological movements of their day. None of these changes was of more consequence than that which determined the differences between the world of spirits and the world of

physical bodies and which made the relation of these worlds to God systematically central. The chief metaphysical work of the Middle Ages, Thomas Aquinas's *Summa de veritate Catholicae fidei*, sketches out from the second book on an ordering of the created world in which essence (*essentia quidditas*) is distinguished from being (*esse*), while these are one and the same in God himself." Aquinas demonstrates that the highest necessary species in the hierarchy of created essences must be those spiritual substances not composed of matter and form but inherently bodiless, i.e., the angels. From them he distinguishes the intellectual substances or incorporeal subsisting forms which require a body for the completion of their species, namely, the human species; and here he develops, in opposition to the Arabic philosophers, a metaphysics of the human spirit, the influence of which can be traced down to contemporary metaphysical writings.⁹ From that world of imperishable substances he distinguishes another portion of the created world which has its essence in the conjunction of form and matter. This metaphysics of the spirit (rational psychology) was then connected to the mechanistic conception of nature and corpuscular philosophy when they gained dominance. But every attempt to formulate a tenable notion of the mind-body relation on the basis of this theory of substances and by means of this new conception of nature was a failure. Appealing to clear and distinct properties of bodies (such as spatial magnitude), Descartes developed his notion of nature as an enormous mechanism, and he regarded as constant the amount of motion present in this whole; but when he accepts the thesis that even a single soul can produce motion in this material system from outside it, a contradiction arises in his system. That non-spatial substances can have an effect on this extensional system becomes no less incomprehensible when he reduces the spatial location of such an interaction to a single point-as if that could make the difficulty disappear. This led to the view that God maintains th' is play of interactions through constantly recurring interventions, or alternatively, that God, being the most adept of artists, has from the beginning set the two clocks of the material system and the spiritual world so that a process of nature seems to evoke a sensation and an act of will seems to effect a change in the outer world. But the strangeness of both these views shows as clear as possible the incompatibility of the new metaphysics of nature with the traditional metaphysics of mental substances. This problem was a constant embarrassment which eventually led to the dissolution of the metaphysical standpoint in general. This dissolution will be completed through the awareness, to be elucidated later, that the lived experience of the self is the basis for the very concept of substance. The concept of substance arose when the lived experience of self was applied and adapted to external experiences on the basis of the principle of sufficient reason. We see, therefore, that the doctrine of mental substance merely transfers back to lived experience a concept of substance which was originally derived from it.

The opposition between material and mental substances was replaced by that between the external and internal worlds-the external world as given in outer perception (sensation) through the senses, and the inner world as presented originally through inner apprehension of psychic events and activities (reflection). Thus given a more modest formulation, the problem lends itself to the 'b'ility of empirical treatment. The lived experiences which could not find adequate scientific expression in the substance doctrine of rational psychology were now validated in light of new and better methods.

As a first step towards the independent constitution of the human sciences on the basis of this critical standpoint, it suffices to distinguish between those processes which have as their material what is given in the senses and are produced by means of connections of thought and processes that concern a range of facts which are given originally in inner experience and without the cooperation of the senses. Processes of this second kind are constituted from material originally given in inner experience but

structured through the influence of external natural processes so that they can be attributed to the latter by a procedure which functions much like an inference by analogy. Thus there arises a special realm of experiences which has its independent origin and its own material in inner experience and which is, accordingly, the subject matter of a special science of experience. The independent position of such a discipline cannot be contested, so long as no one can claim to make Goethe's life more intelligible by deriving his passions, poetic productivity, and intellectual reflection from the structure of his brain or the properties of his body. Since whatever is-there-for-us exists by virtue of this inner experience, and since whatever constitutes a value or purpose for us is so given to us only in the lived experience of our feeling and our will, the science of inner experience encompasses the epistemological principles that determine the extent to which nature can exist for us, as well as the principles of our action that explain the presence of purposes, highest goods, and values; on this all practical dealings with nature are based.

A more thoroughgoing grounding of the independent status of the human sciences vis-a-vis the natural sciences—an independence which is central to our account of the human sciences in the present work—will be developed step by step in this work through the analysis of our total lived experience of the human world and its incommensurability with all sensory experiences of nature. At this point, I shall merely clarify the problem by pointing out the twofold sense in which the incommensurability of these two realms of facts can be asserted; correspondingly, the concept of the limits of our knowledge of nature also receives a twofold meaning.

One of our leading natural scientists has recently undertaken to determine these limits in a much discussed work and has discussed the delimitation of his science in detail. If we conceive all the changes in the physical world as reducible to the motion of atoms, motions generated by means of the fixed nuclear forces of those atoms, the whole of the world could thus be known by means of the natural sciences. He proceeds from Laplace's notion: "Given for one instant an intelligence which could comprehend all the forces by which nature is animated and the respective situation of the beings who compose it - an intelligence sufficiently vast to submit these data to analysis - it would embrace in the same formula the movements of the greatest bodies and those of the lightest atom.", Since human intelligence as employed in astronomy is a "pale copy of this intelligence," Du Bois-Reymond designates as "astronomical" the kind of knowledge of a physical system Laplace imagined. From this we can, in fact, very clearly grasp the bounds which circumscribe the goals of the natural sciences.

Let us now introduce into our considerations a distinction regarding the concept of the limit of our knowledge of nature. Since reality, as the correlate of experience, is given to us through our inner experience combined with our various senses, the elements used in scientific calculations are incommensurable due to their various sources. This incommensurability rules out the derivation of facts having one particular source from facts having another source. For example, from the properties of space we arrive at the notion of matter only by means of the facticity of tactile sensations in which resistance is experienced; each of the senses is confined to its own sphere of qualities. And we must pass over from sensory awareness to the perception of inner states if we are to grasp a state of consciousness at a given moment. Because the data of our experience are incommensurable due to their various sources, we can merely accept them as givens; their facticity is unfathomable for us. All our knowledge is limited to the establishment of uniformities of succession and simultaneity as they are related in our experience. These are limits which are inherent in the very conditions of our experience, limits which obtain at each stage of natural science - not external barriers imposed on our knowledge of nature, but

conditions immanent to experience itself. Now, the presence of these inherent cognitive limits presents no obstacles to the function of knowledge. If one defines "comprehension" as the fully transparent apprehension of a system, then we are dealing here with barriers imposed on comprehension. Whether it be qualities or facts of consciousness that science subjects to a process of calculation which traces changes in reality back to motions of atoms, the mere fact that such changes can be subjected to calculation means that the underivability of qualities and facts of consciousness presents no obstacle to the operations of science. For example, I am no more able to find a point of transition from a purely mathematical determination or a quantity of motion to a color or tone than I am to a process of consciousness. Blue light is not more readily explained by the corresponding frequency of its oscillation than a negative judgment by a process in the brain. Physics leaves the task of explaining the sensory quality of blueness to physiology. Since this discipline does not find in the motion of physical parts the means for conjuring up blue-ness either, psychology is finally duped into trying to establish it. Properly considered, however, the hypothesis that qualities arise in the process of sensation is mainly a calculatory device whereby the changes in reality, as they are given in my experience, are reduced to a particular subclass of changes within that reality corresponding to only a part of my experience. This is in order to bring these qualities to a single level, as it were, for cognitive purposes. If it were possible to substitute constant and precisely defined facts of consciousness for the precisely defined facts which occupy a fixed place in the framework of a mechanistic view of nature, and then, by using the system of uniformities that accounts for the latter, to determine the occurrence of the processes of consciousness entirely in accordance with experience, then these facts of consciousness would be as much a part of our knowledge of nature as are tones or colors.

Just there, however, the incommensurability of physical and mental processes asserts itself in quite another sense and sets limits of a very different kind for our knowledge of nature. The impossibility of deriving mental or spiritual facts from those of the mechanical order of nature - an impossibility based on the difference of their sources - does not preclude their inclusion within the system of nature. But there comes a point where the relations among the facts of the world of human spirit show themselves to be incommensurate with the uniformities of natural processes in that the facts of the human world cannot be subordinated to those established by the mechanistic conception of nature. Only then do we witness, not the inherent limits of knowledge based on experience, but rather the boundary where knowledge of nature ends and an independent human science, shaped by its own central concerns, begins. Accordingly, the fundamental problem is to establish the specific way that the relations existing among facts of the human world differ from the uniformities connecting physical processes. This incommensurability rules out any classification of the facts of the human world which would interpret them as qualities or aspects of matter. It must accordingly involve a distinction of an entirely different kind from those obtaining among the particular spheres of the laws of matter, where mathematics, physics, chemistry, and physiology exhibit a relationship of subordination which is developed with progressively tighter consistency. The exclusion of facts of the human world from the world of matter, its properties, and its laws always presupposes that a contradiction will result when an attempt is made to subordinate relations among the facts in the one region to those among facts in the other. And this is actually what is intended when, over against the spatial order and divisibility of matter and the mechanical necessity governing the behavior of each of its parts, the uniqueness of the life of human spirit is shown through facts of self-consciousness and the unity of consciousness connected with it, through freedom and the corresponding facts of moral life. Almost as well established as any rigorous reflection about the status of human spirit vis-à-vis nature are the attempts to

formulate this thesis of incommensurability on the basis of the facts of the unity of consciousness and the spontaneity of the will.

Since the famous natural scientist [Du Bois-Reymond] already introduced this distinction between the inherent limits of experience on the one hand and the limits involved in trying to subordinate facts to the system of nature on the other, the concepts of limit and inexplicability have been given a precisely definable sense; difficulties which have become very apparent in the controversy raised by his work concerning the limits of our knowledge thereby disappear. The existence of inherent limits of experience in no way settles the question about the subordination of facts of the human world to our knowledge of matter. If an attempt is made to subsume facts of spirit to the system of nature by means of the assumption that there is a kind of psychic life in the components from which an organism is constructed-as in the attempts of Haeckel and other scientists-then our knowledge of the inherent limits of all experience of a kind of does not at all preclude such an attempt; only a second kind of investigation into the limits of natural knowledge can decide the value of such attempts. This is why Du Bois-Reymond, too, proceeded to this second mode of investigation and has argued for his position on the basis of the unity of consciousness and the spontaneity of the will. His proof that "processes of the mind can never be comprehended in terms of their physical conditions" is carried out in the following manner. Even with perfect knowledge of all the parts of the system of physical nature, and of their respective positions and motions, it still remains utterly incomprehensible why a quantity of carbon, hydrogen, nitrogen, and oxygen atoms should not be indifferent as to how they are arranged and how they move about. The inexplicability of what is mental or spiritual would persist even if we assumed that these elements were endowed individually with consciousness in the manner of a monad. The unitary consciousness of the individual cannot be explained on the basis of this assumption. Du Bois-Reymond's statement of the proposition to be proved already discloses an ambiguity in the words "can never be comprehended," and this has as a consequence that two arguments with very different import occur in the proof itself. First, he claims that the attempt to derive mental facts from changes in matter-a move which is today dismissed as crude materialism and is now made only in the form of assimilating psychical qualities into the physical elements-is not able to cancel the inherent limits of all experience. That is true, of course; but it has no bearing on the attempt to subsume spirit under our knowledge of nature. Then he asserts that this attempt must fail because of the contradiction between our notion of matter and the unity of our consciousness. In his subsequent polemic against Haeckel he adds a second argument: Haeckel's assumption yields a further conflict between the way in which a physical component in nature is mechanically determined and how the lived experience of the spontaneity of the will arises. To posit a "will" (in the components of matter) which "must will regardless of whether or not it wants to, and in exact proportion to the product of the masses and in inverse proportion to the square of the distance" is a *contradictio in adjecto*.

Chapter 3

The Relationship of the Human Sciences to the Natural Sciences

To a great extent, however, the human sciences do encompass natural facts and are based on knowledge of nature.

If one were to imagine purely spiritual beings in a realm of persons which consisted only of such beings, then their coming-to-be, preservation, and development, as well as their extinction - whatever representations we may form of the background from which these beings appear and into which they disappear -

would be dependent on purely spiritual conditions. Their well-being would be based on their relation to a world of spirit, their contact with each other and their interactions would be effected through purely mental means, and the lasting effects of their actions would be of a purely spiritual sort. Even their disappearance from the realm of persons would be grounded in the spiritual sphere. The system of such individuals would be known by pure sciences of spirit. In reality, however, an individual comes into being, survives, and develops on the basis of the functions of an animal organism and its connections to his natural environment. His feeling of life is, at least partly, based on these natural functions; his impressions are conditioned by his sense organs and the way they are affected by the external world. We find that the abundance and liveliness of his representations, the strength and direction of his acts of will, are in many ways dependent on changing conditions within his nervous system. His volitional impulses induce contractions in the muscle fibers; an effect directed outwards is bound to molecular changes in his body; lasting results of his acts of will exist only in the form of changes in the material world. Thus the mental life of a man is part of the psychophysical life-unit which is the form in which human existence and human life are manifested. Only by means of abstraction is mental life separable from that psychophysical life-unit. The system of these life-units is the reality which constitutes the subject matter of the socio-historical sciences.

Whatever the metaphysical facts may be, man as a life-unit may be regarded from the two points of view that we have developed: seen from within he is a system of mental facts, but to the senses he is a physical whole. Inner and outer perception never occur in one and the same act, and consequently the reality of mental life is never given simultaneously with that of our body. On account of this, there are necessarily two different and irreducible standpoints for a scientific approach aimed at grasping the connection of the mental and the physical as expressed in the psychophysical life-unit. If I start with inner experience, then I find the whole external world to be given in my consciousness and all the laws of nature to be subject to the conditions of my consciousness and, therefore, dependent on them. This is the standpoint which German philosophy at the turn of the eighteenth century designated as "transcendental philosophy." On the other hand, I can start from the world of physical nature, as I see it before me, and perceive psychic facts ordered within space and time; I then see changes within spiritual life subject to external interference-natural or experimental-consisting of physical changes impinging on the nervous system. Observation of human growth and pathology can extend this standpoint into a comprehensive picture of the dependence of the human spirit on the body. This results in a scientific approach which proceeds from Outer to inner, from physical changes to mental ones. Thus the antagonism between the philosopher and the natural scientist is conditioned by their antithetical starting points.

Let us now take as our point of departure the perspective of the natural sciences. Insofar as this perspective remains conscious of its limits, its results are incontestable. These results receive a closer determination of their cognitive value only from the standpoint of inner experience. Natural science analyzes the causal nexus of nature. Where this analysis has reached the point at which a material fact or change is regularly connected with a psychic fact or change, without a further intermediary being detectable between them, only this regularity itself can be established; no connection of cause and effect can be applied to this relation. We find uniformities in the one sphere of life regularly connected with uniformities of the other, and the mathematical concept of function is the appropriate expression for such a relationship. To conceive the course of mental changes running parallel to physical changes as comparable to the working of two synchronized clocks fits as well with experience as does a conception assuming only one clockwork, which, when taken nonfiguratively as a basis of explanation, considers both spheres of experience as but different

manifestations of one ground. Dependence of the mental on the natural world is a relation according to which the overall natural context causally conditions those material facts and changes which are regularly, and apparently directly, connected with mental facts and changes. Thus the natural sciences regard the chain of causality as reaching into the domain of psychophysical life. But here we find a mode of change in which the relationship of the material and the Psychical is not governed by this sort of causal approach, and this change then in turn generates a change in the material world. In this context the physiologist's experiments disclose the importance of the structure of the nervous system. By analyzing how the bewildering phenomena of life depend on each other, we can trace the sequence of natural changes which reach man, enter his nervous system through the senses, and give rise to sensations, representations, feelings, and desires which, in turn, affect the course of nature. The psychophysical life-unit which is filled with the immediate feeling of its undivided existence is analyzed into a system of empirically observable relations between facts of consciousness and observable relations of structure and the functions of the nervous system. For every psychic act shows itself to be connected with a change in our body only by means of the nervous system; and a change in our body, in turn, is accompanied by a change in our psychic state only through its effect on the nervous system.

This analysis of psychophysical life-units provides a clearer notion of their dependence on the overall context of nature within which they appear and act and from which they withdraw again. It also clarifies how the study of socio-historical reality depends on our knowledge of nature. From this, we can establish the extent to which the theories of Comte and Herbert Spencer are justified in locating these sciences in their hierarchy of all the sciences. While the present work will attempt to ground the relative independence of the human sciences, it must also consider the other perspective, which places them within the framework of all the sciences, and thus it must develop the system of dependencies which can show how the human sciences are conditioned by our knowledge of nature and constitute the final and highest member in a progression which begins with mathematics. Mental facts comprise the uppermost limit of natural facts, and the latter the underlying Conditions of human life. Because the realm of persons, including human Society and history, is the highest phenomenon of the empirical world, knowledge of it must at countless points be based on the system of presuppositions which accounts for its development within the whole of nature.

Man, because of his position in the causal system of nature, is conditioned by it in a twofold respect.

The psychophysical life-unit, as we saw, receives through its nervous system continuous stimuli from the general course of nature which it in turn affects. Where the psychophysical unit affects nature this is characteristically in the form of action guided by purposes. On the one hand, nature and its constitution can govern this psychophysical unit in the shaping of purposes themselves; on the other hand, nature qua system of means for attaining these ends codetermines the psychophysical unit. Thus even in those cases where we exert our will, where we act on nature, we are dependent on the system of nature precisely because we are not blind forces but rather volitional creatures that reflectively establish their purposes. Accordingly, psychophysical units find themselves dependent on natural processes in a twofold manner. Beginning with the earth's position in the cosmic whole, nature as a causal system conditions socio-historical reality. For the empirical researcher, the great problem of the relation between nature and freedom within socio-historical reality is subdivided into countless particular questions involving the relation between facts of the human world and influences of nature. On the other hand, the purposes of the

human world have their repercussions on nature or on the earth, which man in this sense regards as his dwelling and in which he is busily making himself at home. These retroactive influences on nature are also dependent on using the laws of nature. All purposes lie exclusively within the sphere of human spirit, for this is what is truly real for man; but a purpose seeks its means of realization in the system of nature. The change which the creative power of spirit produces in the external world is often nearly inconspicuous. Yet only through it does the value thus created exist for other people as well. The few pages which came into the hands of Copernicus as the material remnants of the profound mental efforts by which the ancients first conceived the idea that the earth moves became the starting point for a revolution in our conception of the world.

Now it can be seen how relative the delimitation of these two groups of sciences is. Disputes such as those about the status of universal linguistics are unproductive. At both points of transition between the study of nature and that of the human world - I.e., where nature influences the development of the mind and where it is either influenced by or forms the passageway for influencing other minds-both sorts of knowledge always intermingle. Knowledge of the natural sciences overlaps with that of the human sciences. Because of this twofold formative influence of nature on human life, we can combine knowledge of how nature shapes human beings with insight into how it provides us with material for action. Thus an important part of grammar and of music theory is derived from our knowledge of the natural laws of sound formation. Even a genius of language or music is bound by these natural laws, and the study of his creative accomplishments is conditioned by an understanding of this dependence.

Here it can be further seen that, to a great extent, knowledge of the conditions supplied by nature and explored by natural science provides the basis for the study of the facts of the human world. The development of the individual, the manner in which the human race has been dispersed throughout the earth, and finally man's historical destiny-all these are conditioned by the cosmic whole. Wars, for example, are a chief component of all history. They are the result of political decisions by states, but they are fought with weapons. The theory of war depends primarily on knowledge of the physical conditions which provide the basis and means for a conflict of wills, for the purpose of war is to impose our will on the enemy by means of physical force. This involves coercing the enemy to the point of defenselessness, until his position is more disadvantageous than the sacrifice demanded of him and can only be exchanged for an even more disadvantageous one. In making such calculations the physical conditions and means are most important; therefore the scientific study of war has very little to say about the psychological factors involved.

The sciences of man, society, and history take the sciences of nature as their basis in two ways: first, insofar as psychophysical units themselves can be studied only with the help of biology; second, insofar as nature is the medium of their purposive activity, which is aimed mainly at the domination of nature. In the first respect, the life sciences provide the basis; in the second, it is chiefly those of inorganic nature. The relation to be clarified consists first of all in the fact that these natural conditions determine the development and distribution of human life on the face of the earth, and secondly in the fact that the purposive activity of man is bound by the laws of nature and is thus conditioned by his knowledge and use of them. Thus the first relation shows only the dependence of man on nature, while the second includes this dependence only as the reverse side of the history of his increasing domination of the earth. Ritter has applied a comparative method to that part of the first relation that involves man's connections to the nature that surrounds him. He presented us with brilliant prospects. In particular, his comparative appraisal of the continents in terms

of their contours yielded a sense of how world history might be predestined in accordance with the overall spatial articulation of the earth. But this approach, which Ritter regarded as a teleology of universal history, and which Buckle placed in the service of naturalism, has not been confirmed by subsequent research. In place of the conception of a uniform dependence of man on nature, a more cautious conception has developed, namely, that the struggle of human, moral powers with the conditions of mechanistic spatiality has steadily reduced the dependence of those peoples that have a history, in contrast to those that do not. Thus here, too, a science of socio-historical reality has asserted itself—one which uses natural conditions to explain, but nevertheless is independent. The second relation shows that the dependence involved in adapting to conditions is connected with the overcoming of spatiality through science and technique in such a way that man in history attains mastery precisely by means of submission. *Natura enim non nisi parendo vincitur.*

The problem of the relation of the human sciences to our knowledge of nature can be solved only when we have resolved the opposition with which we began, namely, that between the transcendental standpoint for which nature is subject to the conditions of consciousness and the objectivistic empirical standpoint which regards the development of the human spirit as subject to the conditions of nature. This task constitutes one aspect of the problem of knowledge. If this problem can be isolated for the human sciences, then a solution acceptable to all is by no means impossible. The conditions for such a solution would be a demonstration of the objective reality of inner experience and a proof of the existence of an external world from which we can then conclude that this external world contains human facts and spiritual meaning by means of a process of transferring our inner life into this world. Just as the eye which has been blinded by looking directly into the sun reproduces the sun's image in the most diverse colors and in the most diverse places, so our perception multiplies the image of our inner life and transfers it in manifold modifications to various points in surrounding nature. This process can be represented and justified as an analogical inference from our own inner life that is originally given immediately to us alone. By means of representations of the objectifications linked with our own inner life, similar appearances in the external world are associated with a corresponding similar underlying source. Whatever nature may be in itself, it is sufficient for the study of the causality of the human spirit that natural phenomena can always be interpreted and used as signs of reality, that uniformities of coexistence and succession can be interpreted and used as a sign of such uniformities in reality. But—once we enter the world of human spirit and investigate nature insofar as it provides the content of spirit, insofar as it is woven into the will purposively or instrumentally, then nature is for us just what it is in us. What nature may be in itself is here entirely irrelevant. It is enough that nature be given in such a way that we can count on its lawfulness for our actions and appreciate the beautiful appearance of its existence.

Chapter 4 Survey of the Human Sciences

An attempt must now be made to determine the task of this work on the human sciences by means of a provisional survey of the range of their half of the *globus intellectualis*.

The human sciences have not yet been constituted as a proper whole; they do not yet establish a system within which individual truths could be arranged according to their relations of dependence on other truths and on experience.

The human sciences have developed from the sphere of practical life itself and have been cultivated through the requirements of professional training. Accordingly, the system of the faculties which serve such training provides the natural form of the system of the human sciences. Their primary concepts and rules have for the most part been discovered in the exercise of actual social functions. Jhering has shown how legal thought, through a conscious mental effort operative in legal practice, created the basic concepts of Roman law. An analysis of ancient Greek constitutions also shows them to contain the results of a remarkable power of conscious political thinking based on clear concepts and principles. The basic idea was that the freedom of the individual resides in his participation in political power, but that this participation is itself determined constitutionally in accordance with what the individual contributes to the body politic. This idea was influential first in practical political life, and only thereafter was it developed in a scientific context by the eminent theorists of the Socratic school. At that time the progression toward comprehensive scientific theories arose principally from the need for professional training in the ruling classes. Thus in Greece during the age of the Sophists, rhetoric and political science were developed to serve the need for political instruction; and when we consider the history of modern nations, most of the human sciences reveal the dominant influence of this same basic relation. Roman literature concerned with public affairs received its first articulation as a mode of instruction for the priesthood and individual public officials. Therefore, the system of those human sciences which contain the basis of the professional training for the institutions which guide society - and equally the presentation of this system in encyclopedias - ultimately arose from the need for a summary of what is necessary for such a basic education. As Schleiermacher has masterfully shown for theology, the most natural form for such encyclopedias will always be that which consciously delineates the system on the basis of this purpose. By taking account of these restrictive [practical] conditions, anyone beginning a study of the human sciences will find in such encyclopedic works a survey of particular prominent groups of these disciplines.

Philosophers have attempted to discover the overall articulation of those sciences that have socio-historical reality as their subject matter by transcending these practical functions. Insofar as they sought to derive this system from metaphysical principles, it suffered the fate of all metaphysics. Bacon used a better approach when he related the existing human sciences to the problem of obtaining knowledge of reality through experience and evaluated their achievements and their deficiencies in these terms. In the *Pansopbiae prodromus* [1630], Comenius intended to derive the sequence in which different truths should be taught from their systematic interdependence; and when he thus discovered - in contrast to the false concept of formal education - the basic idea for a future education (which today, unfortunately, still lies in the future), his principle of the dependence of truths on one another prepared the way for an appropriate classification of the sciences. Comte created the basis for a genuine philosophy of the sciences by investigating the connection between this logical relationship of the interdependence of truths and the historical sequence in which those truths are discovered. He considered the [logical] constitution of the sciences of socio-historical reality the goal of his grand work, and it did, in fact, generate a vigorous movement in this direction, with Mill, Littré, and Herbert Spencer taking up the problem of the system of the socio-historical sciences. Their efforts afford those beginning a study of the human sciences an entirely different sort of survey from that provided by the systematization of the professional studies. They bring the human sciences into the system of knowledge, conceive the problematic in its full dimensions, and set out to solve it through a scientific construction that encompasses the whole of socio-historical reality. However, they are filled with that presumptuous passion for scientific construction currently prevalent among the English and the French and lack that intimate sense of historical reality which only many years of

concrete research into historical reality can produce. Therefore these positivists have not found that starting point demanded by their principle for connecting the particular sciences. They should have begun their work by showing how the tremendous edifice of the empirical human sciences has been constantly augmented, repeatedly transformed from within, and gradually accumulated for thousands of years. They should have grounded the architectonic of this edifice and made it intelligible by an intensive study of its formative plan and in this way, with good historical sense, done justice to the many ways in which these sciences have actually developed. Instead, they have erected a makeshift structure no more tenable than the audacious speculation about nature by Schelling or Oken. Thus it turns out that the German philosophies of spirit, as developed from a metaphysical principle by Hegel, Schleiermacher, and the later Schlegel, make better use of the legacy of the empirical human sciences than do the works of these later positivistic philosophers.

Other attempts at an encompassing classification of the human sciences have, in Germany, proceeded from a preoccupation with political science, which, to be sure, occasions a one-sided view-point.

The human sciences do not form a whole which is logically constituted and which is analogous in structure to the system of the natural sciences. The system of the human sciences has developed differently and must now be considered in terms of its historical development.

Chapter 5 The Content of the Human Sciences

Socio-historical reality provides the content of these sciences insofar as that reality has been preserved in human consciousness as historical information and has been made accessible to scientific study as information about society extending beyond its current state. As vast as this material is, it is obviously not exhaustive. Interests which by no means conform to the requirements of science, and conditions affecting the transmission of culture—again with no relation to such requirements—have influenced our stock of historical information. Since the time when tribes and warriors gathered around the campfire and told of the feats of their heroes and of the divine origin of their race, the intense interest of contemporaries served to elevate and preserve facts from the obscurity of everyday human life. The interest of a later time, together with historical coincidence, serves to select which of these facts will reach us. The writing of history, as a free narrative art, collects only a single part of this vast totality which appears worthy of interest from some particular perspective. In addition, contemporary society lives, so to speak, on the stratified remains of the past. The vestiges of cultural accomplishments embodied in language and superstition, in custom and law, as well as in material changes not captured in written records, comprise a tradition which supports those written records in an invaluable way. But historical coincidence has been decisive for their preservation as well. The content of the human sciences meets the requirements of science in only two respects. The course of more recent cultural and intellectual movements in Europe is adequately documented in the texts that constitute it. And statistical studies permit a quantitatively based insight into those social data which they can encompass, though only for that limited time-span and narrow range of countries within which they have been applied; they make it possible to give a precise basis to information about the present state of those societies.

The inability to see the connectedness of this vast material magnifies this incompleteness—indeed, has contributed a good deal to it. When man began to think

about reality, he first turned toward the heavens, drawn to them by wonder; he reflected on this vault which seems to rest on the circle of the horizon, a self-contained spatial whole which-at all times and in all places encompasses us. The process of orienting ourselves in the cosmos was the point of departure for scientific research, in Eastern lands as well as in Europe. However, the immensity of the cosmos of human facts is not apparent to the eye but only to the mind of the researcher who attempts to gather these facts. This cosmos can begin to emerge in some particular sphere where a scholar connects, tests, and establishes facts; but it is then constituted in the inner domain of the mind. A critical sifting of traditions, a determination and colligation of facts, thus constitutes the first comprehensive task of the human sciences. Since philology has developed an exemplary technique for this task relative to the noblest and most difficult subject matter of history, namely, classical antiquity, this work is now being carried out partly in innumerable particular research projects and partly as a component of more extensive studies. This pure description of socio-historical reality which aims to delineate the distribution of spirit and its variations over the whole of the earth has its basis in the physics of the earth and, following the example of geography, can in each instance attain clarity only by referring back to clear spatial measurements, quantitative relationships, and temporal determinations by means of graphs. The mere collecting and sifting of materials gradually passes over into a conceptual processing and classification of those materials.

Chapter 6 The Three Classes of Assertions in the Human Sciences

The human sciences, as they exist and as they are practiced according to the reason of things that was active in their history - not the human sciences as they are projected by those bold architects who want to construct them anew - contain three distinct classes of assertions. One class describes reality given in perception. These assertions comprise the historical component of knowledge. The second class explicates the uniform behavior of partial contents of this reality, which are separated out by abstraction. These assertions form the theoretical component of the human sciences. The last class expresses value judgments and prescribes rules. These assertions contain the practical component of the human sciences. The human sciences consist of these three classes of statements: facts, theorems, value judgments and rules. Moreover, the relation between the historical, the abstract-theoretical, and the practical pervades the human sciences as a common fundamental trait. Since the human sciences are the standing refutation of Spinoza's thesis that *omnis determinatio est negatio*, the apprehension of what is singular and individual is for them as much a final end as the explication of abstract uniformities. From the lowest to the highest levels of consciousness, value judgments and imperatives generate a system of sentences which is independent of that of the first two classes. The interrelation of these three tasks in reflective consciousness can be elucidated only through epistemological analysis - more broadly, through self-reflection. But in any case, assertions about reality remain fundamentally separate from value judgments and imperatives; this results in two kinds of statements which are basically different. And at the same time it must be acknowledged that this difference within the human sciences has as its consequence a twofold standpoint within them. As the human sciences have developed, they have come to contain, besides the knowledge of what is, a consciousness of a system of value judgments and imperatives wherein values, ideals, rules, and the aim to shape the future are connected. A political judgment that condemns an institution is not true or false but rather correct or incorrect insofar as that institution's tendency, its goal, is being appraised; on the other hand, a political judgment which describes the connections of this institution with other institutions can be true or false. Only when this insight is used to orient the theory of sentences,

assertions, and judgments will we have an epistemological foundation that does not truncate and mutilate the subject matter of the human sciences by seeking to force it into the Procrustean bed of knowledge of uniformities analogous to that in the natural sciences, but instead comprehends and grounds the human sciences as they have themselves developed.