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THE HUMAN SCIENCES AS SELF-DEFEATING
AND SUBVERSIVE VENTURES

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Introduction

This is part of Chapter I of my book, The Mechanical Spirit, a history of Pavlov's school from its foreshadowing in the 1860s to its deification in the 1950s.

The main theme of Chapter I is stated as briefly as possible on p. 16 of the unabridged version: Science as a mode of critical inquiry has spoiled the dream of science as a unified understanding of the human world and a guide to perfection. Our age has created no credible substitute for that failed dream of the Enlightenment. As the great 19th-century efforts to create a "synthetic philosophy" gave way to the incoherent clutter of the human sciences that we know today, different groups reacted in different ways, depending on their socio-political circumstances and ideological commitments. Philistine narrowness and self-deception became characteristic of specialists in the human sciences. Mindless indifference replaced hostility among conservative politicians and ideologists, including those of Tsarist Russia. Orthodox Marxists refused to see that their version of the Enlightenment dream was failing along with the "bourgeois" versions. Thus they set themselves up for disillusionment and apostasy (the German reaction), or for angry intervention in the human sciences (the Russian reaction), after revolutionary success reinforced a faith that defied intellectual justification. It is not the presence of a comprehensive Marxist science of humanity, it is the intolerable absence of such a science that

has driven Soviet ideologists along their erratic way in psychology as in the other human sciences.

Sections 1 and 3, which are omitted here, review 19th-century developments in neurophysiology, in psychology, and (very briefly) in anthropology. I argue that neurophysiology became a rigorous science in the 19th century by excluding the mind from its field of study. That exclusion caused difficulties for physiologists when they came to analyze the higher functions of the central nervous system, such as the flow of gastric juice and saliva in response to the suggestion of food rather than food itself. But such difficulties in neurophysiology appear trifling when compared to those of experimental psychology. It emerged in the mid-19th century as a new discipline, applying the methods of physiology to a problem that physiology had rejected as insoluble; the explanation of mental life. The would-be science of psychology fragmented into schools so deeply divided that polemical contention gave way to sullen disregard and sectarian isolation. The great 19th-century psychologists, most notably Wundt and Franz Brentano, made heroic efforts to achieve "unity of conviction," but they provoked disunity. Wundt unwittingly helped to generate the behaviorist revolt against the concept of mind in the science of mental life. Brentano helped to generate schools as divergent as Gestalt psychology, Freudianism, phenomenological speculation about mind as subjective experience, and the school of cognitive psychology that has achieved ascendancy in the Soviet Union.

Section 2, which is also omitted here, argues that there is a fundamental antagonism between the poetic concern for the person or self and the scientific transformation of persons into things. Poets such as Schiller, Wordsworth, and Coleridge took a sympathetic interest in neurophysiology while it still included some concept of a human spirit. From the 1840s, when the science entered its great period by becoming thoroughly mechanistic, imaginative writers turned away in revulsion. The apparent exceptions to the rule of antagonism between science and the literary imagination (e.g., Zola) actually prove the rule when examined closely. The significance of that antagonism should become apparent in the following sections, 4-5, which focus on Marx's effort to humanize the human sciences.

4. Politics and Philosophy

The wonder is that rulers were so nice to thinkers. Nineteenth-century materialism and positivism, in any of their forms, subverted the antique religions that rulers still invoked to justify their rule. In some forms they were directly linked with movements to overthrow the old order.¹⁰² But the urge to repress subversive ideas continued to recede, as it had in the 18th century. The advance of toleration in the 19th century is especially surprising when one notes the accelerating increase in the audience reached by subversive ideas. The rise of mass education and the mass press, of public lectures and free libraries, coincided with a decline in working hours, which gave more people more time and inclination for reading and listening to dangerous thoughts. In most European countries the 19th century was also a time of revolutionary outbursts, and of great fear--or hope--that the outbursts might intensify to the point of a successful lower-class assault on their social and political masters.

Those processes would seem, on first thought, to have removed the social basis of intellectual toleration. In the 18th century toleration emerged on the basis of a sharp division between the unlettered masses, which could be presumed impenetrable by enlightened thought, and a tiny cultivated minority, which could be presumed too comfortable to use subversive ideas for anything but conversational toys. A split mentality allowed enlightened rulers to tolerate such thinkers as

Diderot and Lamettrie, while using state churches to hold the masses in obedience "for conscience' sake, not merely out of fear."¹⁰³

It is not necessary to guess at subconscious attitudes; a double standard was quite consciously applied, at times with open cynicism. Catherine the Great maintained a state church so benighted that some of its censors still tried to arrest the movement of the earth about the sun.¹⁰⁴ Yet she had no fear of Diderot, who had been jailed in France for subverting belief in the immortal soul. Catherine invited him to St. Petersburg, as an intellectual decoration of her court.¹⁰⁵ In Prussia Frederick the Great offered a refuge to Lamettrie, when he was hounded out of France and then even out of Holland, where a pioneering effort at religious toleration had not yet extended to godless materialism. Frederick not only rescued Lamettrie but delivered a eulogy over him, when he died prematurely. In that speech Frederick the philosopher derided the Christian faith he maintained as a monarch.¹⁰⁶

By the middle of the 19th century it is impossible to find a national ruler, whether king or president, courting atheistic thinkers and sneering at the traditional faith of his subjects. On the contrary; reverential posturing became an obligatory style in the political arena. But a split mentality of a different sort was becoming characteristic of modern political leaders. Hypocrisy would be an inaccurate term; it implies a mind that knows one thing while the mouth is saying another. More and more the political mouth was

disconnected from the mind, and wired to a political calculator. Political authorities kept the appearance of a reverential outlook by stunting their intellects, simply ignoring conflicts between the religions or ideologies that they professed and the discordant visions implicit in science or proclaimed in the name of science. Louis Napoleon, for example, still had enough old-fashioned pretensions of enlightenment to invite Claude Bernard to the palace for a lecture on new developments in physiology.¹⁰⁷ (In our century such pretensions of intellectuality have vanished from executive mansions, with the significant exception of Communist rulers fresh in power.) But Louis Napoleon showed no awareness of the conflict between science and the Catholic Church, which he strongly supported for political reasons. Claude Bernard helped this mindless civility emerge by being a prudent professional, the thoroughly modern type of scientist. Though his work would have delighted Lamettrie by its mechanistic assumptions, methods, and findings, he carefully avoided inflammatory confrontations between the concept of l'homme-machine and the concept of l'homme-esprit, the physiologist's approach to the psyche and the churchman's or the humanist's. As for politics, he was an Orleanist, a moderate conservative, sufficiently candid to win a reputation of sturdy independence, sufficiently passive to cause the Bonapartists no anxiety.¹⁰⁸

In Germany of the mid-19th century the situation was different, on the surface at least, because of the great tumult aroused by the popular materialists, Büchner, Vogt, and Moleschott, who linked their

radical philosophy to mechanistic physiology. They were forced out of their academic positions, and even, in the case of Vogt, who was a revolutionary socialist as well as a materialist, into exile from the fatherland.¹⁰⁹ Other freethinkers--a euphemism increasingly emptied of real meaning as governments retreated from thought control--were tolerated in universities, on the tacit understanding that they would be less provocative than the "vulgar materialists."

That delicate balance set the tone of a major convention of scientists at Göttingen in 1854. It was opened by a conservative old physiologist, Rudolph Wagner, who equated mechanism with materialism, and called upon his colleagues to earn the trust of state and society by repudiating the subversive doctrine in biology as well as philosophy. A debate was scheduled between him and Carl Ludwig, a young spokesman of the new mechanistic physiology, but it failed to take place. Both sides seem to have backed off in fear, of political trouble in the case of Ludwig, of professional disgrace in the case of Wagner.¹¹⁰ Subsequently, when Carl Ludwig heard that he had been refused a professorial chair at Bonn because of his reputation as an atheist, he wrote to the Prussian Kultusminister arguing that religious beliefs are quite separate from physiology, and citing in evidence an eminent physiologist who was a devout Christian and "a good friend of the rest of us."¹¹¹ Of course he did not directly acknowledge that "the rest of us" were freethinkers, and he passed beyond diplomatic evasion to prevarication, by citing a supposed proof of a personal God in a speech by Helmholtz.¹¹² But we must not be harsh.

Compartmentalization of the mind was the central point in Ludwig's plea for modern civility. His letter was a little venture in politics, where evasion and prevarication are the norm. Among scientists Ludwig was renowned for his open, honest character.¹¹³

The notion that mechanistic physiology and evolutionary theory were intimately linked with atheism and radicalism became a sectarian belief during the latter part of the 19th century, more and more obviously at odds with reality in Germany as elsewhere. Leading biologists disowned the connection not only quietly, in the manner of Carl Ludwig, but also publicly, even noisily. Rudolf Virchow, who had fought for the revolution in 1848, when he was 27, caused a sensation at a scientific convention thirty years later by a political attack on the proposal to teach evolution in the schools. He linked evolutionary doctrine to socialism, and warned his fellow scientists that their academic freedom might not survive such challenges to the ideology that sustained the existing order.¹¹⁴ Virchow was an eccentric scientist on the problem of evolution, and he was exceptionally strident in his manner of expression, but he was probably close to the average German scientist in his conviction that scholars should protect academic freedom by confining it to the ivory tower, leaving ideology to the powers that be.

Emil Du Bois-Reymond, who had not fought on the barricades but had shocked German philistines with his extreme mechanism in the '40s and '50s, made amends in a more genteel fashion as he grew older. He

gave philosophical lectures, which turned into popular pamphlets, arguing that science only seemed to be on the way to conquer the whole world of thought. On closer examination, science proved to be forever incapable of solving the most basic riddles that challenge the human mind, such as the question, What is mind itself? To those questions, he declared, scientists must respond Ignorabimus forever, We shall never know, and thus leave humanity to its traditional faiths and metaphysical speculations.¹¹⁵ Helmholtz, still closer than Du Bois-Reymond to the secluded academic type, published a quieter disapproval of the materialism that claimed support in biology.¹¹⁶

Thus, when Büchner founded the Freethinkers' League in 1881, he was clearly at odds with the leaders of mechanistic physiology, his own original discipline, which he pictured as the scientific foundation of materialist philosophy. He was also implicitly at odds with his own vision; like many an earlier preacher of a universal creed, he was establishing one more sect. He could not leave his philosophy to triumph spontaneously, along with the discipline of biology. His philosophy of biology had to be propagated by an organization of dedicated believers, who were increasingly ignored or brushed off by biologists. Thus the materialist philosophy implicit in modern biology was sinking from intellectual debate into the clutter of popular beliefs, this one shared with provincial fundamentalists, who loathe biological science for the same reason that Büchner exalted it, as a basis of godless radicalism. Whether the belief has intellectual value was coming to matter less than its value in the calculus of political forces.

For German politicians Bismarck's abandonment of the anti-Catholic struggle in 1879 was a major turning point toward the thoroughly modern separation of politics from theoretical ideology. Of course the Freethinkers' League was not included in the de facto governmental coalition that emerged after Bismarck quit fighting Catholicism, but intellectual incompatibility probably had little to do with the exclusion. Once Bismarck, a devoted Lutheran and an opponent of party politics on principle, made his political deal with the Catholic party, he had no need of the atheist party. In fact, his abandonment of the struggle against Catholicism may have precipitated the formation of the Freethinkers' League, by aggravating the atheists' sense of their own isolation.¹¹⁷ One might almost say that conservative politicians and conservative scientists conspired to drive radicals and materialists into sectarian impotence. It was not a conscious conspiracy. Things just happened that way, as politicians and scientists sacrificed their intellectual sensitivity in order to accommodate mechanistic biology and conservative ideology.

But then, of course, there is the exceptional radical, Karl Marx, whose admirers grew from sects to armies, first in Germany then the world. Didn't he hand on from the 19th to the 20th century the unbroken faith in materialist science and political radicalism one and indivisible, thought fused with action to comprehend and transform the world? That is not a rhetorical question. The devout ayes are too fervently pitted against the scornful nays for the issue to be

dismissed with rhetorical gestures. We must ask quite seriously what there was in Marx's version of the 19th-century faith in science that saved it from the common wreck of all the others.

To ask the question is to enter an old quarrel. Many object that Marx's version of scientism was not saved but wrecked in its own special way: transformed from genuine thought into the crude ideologies of mass movements and regimes, which have not been "really" committed to Marx's understanding of science and radicalism any more than the Christian churches have been "really" committed to Jesus' teaching. Others find important continuities of belief linking Marx to his admirers, but only by dividing Marx in two: the scholar and the ideologist, the one inspiring an impressive array of thinkers to discuss his thought, the other inspiring movements and regimes to put his leonine head on their icons, of opportunism (Social Democratic version) or totalitarianism (Communist version). Still other commentators impatiently brush off Marx altogether, as a muddled violent thinker who earned his place on the wall-poster icons of leftwing totalitarianism. And then of course there are the millions of simple believers, who revere Marx as the one true founder of the science that will make us free: where all others failed he succeeded, as proved above all in the triumphant application of his teaching by Lenin and--Stalin? Mao? Castro? Carillo? After Lenin the militants cannot agree. Even for the least thoughtful the science in scientific socialism has become problematic, as it always has been for contemplative observers.

It is foolish to pretend an easy superiority to such conflicts of passionate opinion. There is no demilitarized zone for scholars. To claim impartiality is to be at war with all the other claimants on that sacred ground, and we can only hope to have something like reasoned discourse if we try strenuously to reduce differences of opinion to questions of fact. In the factual record it is obvious that Marx has been singled out from the other 19th-century prophets of salvation through science, and he has been singled out by contemplative thinkers as well as political activists. His name, pinned to a variety of ideas, is constantly invoked in scholarly discourse as well as mass demonstrations, literally all over the world. If we ask what distinctive qualities may have earned Marx this uniquely broad and lasting appeal, and if we go back to Marx's own writings to find out, the first, most obvious distinction that strikes us is incompleteness. We find no grand synthesis of the universal process, as we do in Comte or Spencer, offered as the summation of all the sciences. Marx did not even produce a brief tract outlining his philosophical approach to the unified science of the future, such as Büchner and other prophets of that exalted century delivered to an avid public. At twenty-six Marx made a sketch for such a tract, and left it that way, an unfinished, unpublished sketch.¹¹⁸ Approaching forty, he sketched a grand science of human history, and left that too unfinished and unpublished.¹¹⁹

For the twenty-five years remaining to him Marx concentrated his enormous energy on one piece of the grand science, the analysis of the

capitalist stage in socio-economic development. At the same time, complaining of such interruptions to his serious scholarship, he kept returning to "journalism," as he called his historical essays on contemporary affairs, ranging from the revolutions of 1848 to the American Civil War and British rule in India. Even in the "journalism" one finds revelations of self-limitation beneath the appearance of unbounded self-assurance. Late in his life, for example, when Marx's first Russian admirers asked his opinion of Russia's path of development (Could the country skip over capitalism, directly to socialism?), Marx wrote several drafts of a pamphlet or article on the subject, and left them unpublished. He sent letters instead, saying he did not know enough to back up his tentative opinion (Yes, Russia might skip capitalism), and his Russian admirers kept the letters private, for Marx's Marxism was at odds with theirs (No, Russia could not skip capitalism).¹²⁰

Obviously--if that word may vault us from fact to interpretation--two mentalities were at war within Marx. A revolutionary prophet, who strained to encompass the synthetic truth of the universal process, contended with an exacting, down-to-earth thinker, who kept breaking down the grand truth by trying to prove it. Marx's personality was notoriously assertive, imperious in presenting his own views, excoriating those who disagreed.¹²¹ We hardly need the testimony of contemporaries; the harsh character is till urgently alive in the vehement, caustic style of his scholarly writing, no less than his journalism.

By comparison the treatises of Comte or Spencer are measured, judicious, almost academic. But their stylistic restraint conceals substantive pretensions far greater than Marx's. They not only dreamed of unifying all knowledge in the service of human perfection; they elaborated their dreams in detail and published them as systems. They were able to combine such grand pretensions with a sense of sober restraint, for they had a complacent view of science and society. From their viewpoint knowledge could be unified by summation of the existing disciplines, and the way to human perfection could be projected as a continuation of the dominant trends in existing society. Thus Comte and Spencer could enjoy very broad appeal, while confidence in existing knowledge and dominant social trends was widespread. But their comforting message was also their undoing by the end of their century. As impending upheaval in knowledge and society replaced confidence with a sense of crisis, the synthetic positivists were abandoned by an increasingly anxious public. They were proved not wrong but inane.

Marx had a far more audacious dream, expressive of angry disturbance even more than hope. He was profoundly revolted by the existing condition of knowledge and society, and therefore yearned for the unification of knowledge through the transformation rather than the aggregation of the existing disciplines--a revolutionary transformation of knowledge, to be accomplished in union with a thorough social revolution. That characterization is broad enough to cover the whole of Marx's intellectual development, from 1844, when he sketched his grand

vision, to 1883, when he died, still laboring on Capital. It is also broad enough to explain why enormous attention was paid to Marx after he died, as a sense of crisis--and the reality of appalling crises--provoked a hunger for harsher analysis and grimmer prophecy than the synthetic positivists offered.¹²² But that characterization of Marx and his exceptional appeal, though true, is evasive. It is too loftily detached to discern the painful choices that human scientists must make, especially when they are revolted by the society they are studying. If we approach closer, to see how Marx conceived the human sciences, as they were and as he wished them to be, we do not find a single consistent view, but an unresolved tension between opposed tendencies.

The romantic complaint,¹²³ that modern society and science are intolerable because they turn persons into things, was a central theme in Marx's "Economic-Philosophical Manuscripts of 1844." But the complaint was put in an historical context that made Verdinglichung, "thingification" or "reification," an inevitable stage in the dialectical process of Vergegenständlichung, "objectification," the self-contradictory way that human beings create themselves by creating things, by transforming their essence into objects. Following Schiller,¹²⁴ young Marx extended that line of argument even to the physiology of the senses. He felt that society had stripped human beings of the capacity to feel, even to see or hear, as whole human beings. Humanity had disintegrated into a menagerie of deadened, one-sided creatures, but the disintegration was leading to the ultimate

emergence of genuine, integral human beings. In his own, quasi-Hegelian words:

The formation [Bildung] of the five senses is the work of all of world history to the present. The sense that is subject to raw practical necessity has only a limited sense. For the starving man food does not exist in its human form but only in its abstract existence as food, . . . and it cannot be said wherein his feeding activity differs from animal feeding activity. The worried, impoverished man has no sense of the most beautiful drama. The dealer in minerals sees only their commercial value, not the beauty and special nature of minerals; he has no mineralogical sense. Thus the objectification of the human essence [die Vergegenständlichung des menschlichen Wesens] is necessary in theory and in practice, both to make the human senses human and to create human senses corresponding to the entire wealth of human and natural being.¹²⁵

That bewildering verbal play with the multiple meaning of the world "sense" (Sinn) can be translated into the pedestrian language that connotes seriousness in the academic world. The mechanical meaning of sense, the animal's capacity to turn specific physical stimuli into specific nerve energies, is the only meaning explored in the science of physiology. Even sense as sensation, subjective feeling, is ruled out of objective science, not to speak of sense as meaning and comprehension and aesthetic appreciation. Marx in 1844 disdained mere physiology as Tennyson did,¹²⁶ about the same time and for a similar reason: it did not grasp the whole human being, it did not get at the human essence. Unlike Tennyson, Marx was not willing to supplement science with humanistic philosophy and poetry. He wanted to enlarge science to include humanism, to have science reveal the process by which creatures who have reified themselves will in the future transform themselves into authentic human beings.

To get at the human essence (das menschliche Wesen) Marx appropriated Feuerbach's concept of the Gattungswesen, "generic being," as it should be translated, instead of "species being," as it usually is. The Latin root "generic," like the German Gattung, implies generation, not merely classification: the generation by human beings of themselves, literally, in the production of children and goods, and figuratively, in the creation of the human essence. Translation problems aside--and passing over, for the moment, the possibility of a vicious circle in that definition--the important point is that Marx was still clinging to the concept of human nature or essence. His German term, das menschliche Wesen, is much closer than the analogous English term, "human being," to the metaphysical source, the urge to discover in our particular selves some universal quality that constitutes our humanity. Such philosophical compulsions were being evaded by the separate disciplines that were emerging from philosophy. (Indeed, philosophy itself was on the way to its 20th-century avoidance of metaphysics, including avoidance of speculation about essential human nature.) Political economy, sociology, anthropology, history were more and more shunning explicit assumptions about human nature in their analyses of human activity, and activity was not only separated from the problematic essence of the actors, but also chopped up into manageable parts--economic activity studied by economists, government by political scientists, primitive cultures by anthropologists, segments of advanced cultures by historians--with integration indefinitely

postponed.¹²⁷ Physiology, as we have seen, was leading that disintegration of the human sciences in the mid-19th century, and psychology was following along, on the way to becoming a discipline that deliberately avoids the question, What is the nature, the essence, of a human being?

In Marx's intellectual development we can see an especially tortured version of that transition from philosophical speculation about human nature to scientific investigation of human activity, broken down into manageable divisions. Already in 1844 he equated human nature, das menschliche Wesen, with Gattungswesen, the generic being of humanity, which was not a permanent essence but an historical process, ages of labor and struggle by which human beings have been paradoxically creating their essential nature and alienating themselves from it. Those who produce goods are alienated from the instruments and the produce of their labor, as ownership is vested in dominant classes of people who do not labor. Thus both producers and exploiters are alienated from a sense of creative participation in the work process, and therefore from a sense of community with other human beings. And thus they are alienated from consciousness of themselves as authentic human beings. That is, they do not comprehend the Gattungswesen that they and their ancestors have been generating.¹²⁸

Marx nowhere tries to end the incomprehension by attempting a full, substantive explanation of the human essence as it will emerge in the revolutionary future. He drops hints in his scattered references

to free, conscious, integral activity--a dream of people who will hunt in the morning, fish in the afternoon, and do criticism at night.¹²⁹ Those hints are fragmentary sentimental lapses from his grim main argument, which defines human nature by pointing to history, an endless, unfinished definition, "the tradition of all the dead generations [that] weighs like a nightmare on the brain of the living."¹³⁰ Scientific analysis of the nightmare process seemed to Marx the only escape from it. He thought to discover a human future by scientific analysis of an inhuman past, at the same time that he scorned the existing social sciences as apologies for existing society. He hoped that an authentically human science and an authentically human society would emerge together, each informing the other, in the course of a revolt against existing science and society.

Sneers will not solve the problem that had Marx in its grip. He was trying to define human nature by pointing to an endless process, which will have defined human nature when it ends, and he was trying to break out of that vicious circle by catching some anticipatory glimpse of a glorious end. He could not indulge such escapism at length without turning against science and reverting to metaphysics. That is, he could not attempt a thorough definition of authentic human nature without reverting to the "drunken speculation"¹³¹ that he began by rejecting in favor of science. He found himself trapped, along with other thoughtful people of his time and ours, in the disintegration of human nature by the alienating disciplines that are called, without conscious irony,

the human sciences. Aspiring to a comprehensive understanding of authentic human nature, he made himself an economist. He forced himself to seek the human essence in the capitalist system, which he loathed for its negation of the human essence.¹³²

To overlook that tragic self-defeat is to miss not only the central drama of Marx's intellectual development but also the continuing self-defeat of the human sciences, which have proceeded so far with the disintegration of their subject matter that even the dream of philosophical reintegration is widely regarded as an absurd relic. In such circumstances it is not only a gross misreading of Marx to equate his frustrated aspiration with achievement, that is, to say that he actually achieved a comprehensive philosophy, showing how all the human sciences are to be recast and integrated as a guide to the revolutionary transformation of humanity. It is also a cruel insult to misread Marx that way, for it turns him from a great living thinker into a fossil windbag, and burdens his admirers with the humiliating task of making themselves windbags or fossils. If we engage our minds with Marx's actual thought and its continuing impact, we find ourselves struggling with the central defects of the human sciences--incoherence and dehumanization--not a bogus correction of those defects.

5. Economics and History

Even within political economy Marx's revolutionary innovations have exacerbated the defects he strove to correct. He pointed out the inadequacy of an economic science that is limited to the mechanisms of price formation and resource allocation within a capitalist system. Such a science is not only tainted with ideology--it endows capitalism with an aura of inevitability--it is also scientifically crippled. It avoids the basic problem of change from one type of socio-economic system to another, a problem that has practical urgency as well as theoretical importance.¹³³ In the unpublished Grundrisse Marx tried to classify socio-economic systems in an evolutionary sequence. He could not make up his mind whether the pattern of commercialization and industrialization that he discerned in Western Europe applied to the whole world.¹³⁴ In the published outcome of the Grundrisse, The Critique of Political Economy (1859), he dodged the problem, or rather, packed it unsolved into a very brief statement about stages of development, which included an undefined "Asiatic mode of production," a system he thought might be indefinitely static.¹³⁵ As his doctrine spread to Russia and to non-European countries, it provoked splits between universalists and nativists, as we may call those who have declared the West European pattern to be universal and those who have discerned distinctively non-Western types of socio-economic development--or stagnation. At issue is not only one more unsolved problem, but the nature of problem-solving

in the human sciences. Economic science may be incapable of constructing a phylogeny of socio-economic systems that accords with historical evidence. The capricious particularity of human societies may be so great as to require that problem, like so many others, to be dumped in the unscientific discipline called history, the museum or junkyard of irremediable contingency.¹³⁶

For the future as well as the past Marx raised problems of systemic transformation that may be beyond the capacity of science to resolve. He predicted a transition from a society shaped by commodity production to a socialist society, in which labor would cease to be a commodity and would become a free expression of creative human nature, like personal love or play. In that ideal society, freely given goods and services would be freely drawn from the public stock.¹³⁷ Marx was not a calm eclectic, who might be content to create a theoretically possible economics of socialism alongside the bourgeois economics that assumes the necessity of treating labor as a commodity. Theorizing of that sort leaves socialism a mere possibility, perhaps a utopian dream at odds with historical realities. Marx was intent on being realistic. He tried to prove that the inherent tendency of capitalist systems was to break down, thereby obliging people to make a revolutionary leap from bourgeois necessity to socialist freedom. Those who believe he succeeded stand hopelessly divided from economists who believe he did not, and the non-believers are divided among themselves. Some brush off Marx's concern with systemic breakdown as mere ideology, while others

think he raised a genuine scientific problem, the problem of self-generated change within capitalist systems, including the possibility of the system transforming or destroying itself.¹³⁸ Economists who aspire to a universal science of choices in any possible system dump this problem too onto historians, politicians, and all the other impure types who must struggle with some particular version of the real world as best they can.

Sharper divisions occur among Marxists who must manage post-revolutionary systems. Marx was too fearful of utopianism to offer any more guidance than the general goal of abundant freedom, and the warning that the transition to that freedom would be subject to bourgeois necessities.¹³⁹ For some time after the revolution as before, the bourgeois calculus of price formation and resource allocation must still be used; human labor must still be bought and sold as a commodity rather than freely given and accepted as a spontaneous expression of the human essence. The rival claims of bourgeois calculation and socialist aspiration would be hard enough to reconcile in the calmest of scholarly seminars. In the actual turmoil of postrevolutionary regimes the rivalry usually turns into political warfare, and Marx's critique of bourgeois economics becomes a club to beat realistic calculators. Worse yet, the club is wielded by zealots of disciplined national power rather than abundant personal freedom, devotees of "barrack socialism," as Marx called equalitarian deprivation under an authoritarian regime.¹⁴⁰ In the real postrevolutionary world the dream of socialism as emancipation

from dehumanizing compulsion is driven back to its place of origin, the intellectual ghettos of capitalist countries.

I am suggesting that Marx and his disciples fell prisoner to the science he set out to humanize, when he tried to change economics into an historical sociology pointing toward the ultimate triumph of the human essence. It may be that economics cannot be humanistically transformed, that it can only be limited in its applications by a refusal on non-economic grounds to accept the complete determination of human life by mechanisms of commodity production and exchange. To raise that possibility is to go back to the original clash between the scientific socialist that Marx aspired to be and the utopian socialists that he derided as impotent dreamers. Tantum economica potuit suadere malorum, if I may modernize Lucretius one more time. Within so many vicious circles can economics entrap us.

Even if those problems of economics could be surmounted, it would still be unclear whether the other disciplines that study human beings could be fit within the framework of an imaginable social science. Consider the discipline of history, to which Marx had frequent recourse in his efforts to explain various social processes. On such occasions he did not feel constantly obliged to demonstrate the basic rule of his social science: that the historical process is determined by changing modes of production and by the class conflicts that derive from those modes. He felt free to attribute significance to accidents, personalities, ideologies, particular political and national traditions--even such as shape the modes of production and class conflicts. Occasionally

he remembered to rescue the basic rule--or to set it aside--with some loose formula restricting the determining power of the mode of production to "the long run," "the last analysis," or "the final account." But for the most part, when he wrote historical essays, Marx kept his ultimate rule of explanation in the back of his mind, and explained as other fine historians do, according to proximate rules that resist explicit formulation, that strike the mind with explanatory force only when they are implicit in concrete examples and images. Such a discipline is a strange mixture of science and art, an art akin to the poet's or dramatist's. Its explanatory power derives as much from metaphor, the imaginative fusion of the particular with the general, as it does from the logical back-and-forth between clearly stated generalization and explicit inference, which is characteristic of science. The historian's ability to make us understand human beings also depends heavily on value judgments, which the natural scientist avoids.

A couple of contrasting examples may help to clarify this intermingling of the scientific and the poetic. Sometimes the scientific mode of explanation can be isolated without much trouble, though with a significant moral and aesthetic loss. Toward the end of Capital, volume I, Marx argues at length that "primitive accumulation" requires extra-economic compulsion. He supports that generalization with economic analysis and with historical examples, such as the eviction of English peasants by governmental edict, the abduction of Africans to slavery in the Americas, and English looting of Spanish looting of

American Indians. He sums up with a grotesque metaphor: "Capitalism comes into the world smeared with filth from head to toe and oozing blood from every pore."¹⁴¹ A rigorous social scientist would interpret that metaphor as gratuitous decoration, an addition of moral judgment to an explanation that can and should be judged on its own, by reference to the economic analysis and the historical data, with the moral emotion set aside. In short, the scientific historian evaluates Marx's contribution to the human sciences by trying to sever his intellect from his feelings.

Usually the discipline of history resists such amputation. It would be impossible to separate explanation from judgment, intellect from feeling, in Marx's essay, The Eighteenth Brumaire of Louis Bonaparte. The theme is set by a splendid metaphor in the opening lines: "Hegel remarks somewhere that all great, world-historical facts and personages occur, as it were, twice. He forgot to add: the first time as grand tragedy, the second as shabby farce."¹⁴² I hope it is unnecessary to point out that that is not a literal generalization or "covering law."^{*} It is a compound metaphor, and as such it is a master stroke of the satirist's art, introducing a comparison of the little Napoleon of 1851 with the great original of 1799. Each was raised to power by a revolutionary drama, tragic in the original, farcical in

* As condign punishment for their simplemindedness, believers in the "covering law" model of historical explanation should be obliged to attempt a translation of such passages into literal statements. They would soon find their philosophy of lofty error repeated as low farce.

the later imitation. The metaphor is inseparable from Marx's explanation of Louis Bonaparte's triumph in the revolutionary events of 1848-1851. "I . . . show how the class struggle in France created circumstances and relationships that made it possible for a grotesque mediocrity to play a hero's role."¹⁴³ A bare *précis* such as that, which Marx offered in the preface to the second edition, drains his explanation of nearly all its persuasiveness, and even so the *précis* cannot dispense with the metaphorical equation of political conflict and tragicomic drama, in which human meaning is imparted to the action by the contrast between the protagonist's mediocrity and his heroic pretensions.

Implicit in that metaphor is an invitation to the audience to share the author's lofty view of the human essence, which the pretentious buffoon on stage illuminates by contrast, by his comic distance below it. The audience or readers see the contrast, even if they do not see it from the author's ideological viewpoint; they need only feel that the protagonist is at odds with some notion of a genuinely human essence. It is not necessary to accept Marx's explicit standard for judging Louis Bonaparte, which is offered as a supposedly scientific generalization: the age of bourgeois revolution, with its individual heroes, is giving way to the age of proletarian revolution, in which the masses emerge as a collective hero. The period 1848-1851 is pictured as a moment in between; a pseudo-hero appeals to alienated masses of fearful peasants, petty bourgeois, and Lumpenproletarians, who will

soon be transformed into collective revolutionaries as they are thoroughly proletarianized by the further development of capitalism. More than a century of hindsight tells us that Marx's supposedly scientific generalization was a pipedream, for France at least, but his essay nevertheless retains its power as an historical explanation. Indeed, the recurrent 20th-century experience of fearful masses huddled in awe of dictatorial pseudo-heroes--some of them invoking Marx's name--heightens our readiness to be instructed by his essay. We may lack Marx's faith that proletarian revolution will emancipate humanity from history as absurd nightmare,¹⁴⁴ but we share with him some battered sense of what a genuinely human history would be, and are therefore prepared to grimace appreciatively at his tragicomic caricature of it.

I am not suggesting that the modern discipline of history is identical with modern fiction or ancient mythmaking. Nowadays we expect the historian to be a reliable clerk, an accurate recorder of deeds. But we still expect him to infuse poetic meaning into the ephemera of our lives, to reveal a lasting human essence, as the ancient mythmakers did without great concern for facts. This strange modern art, which must verify poetic constructions by thrusting them upon facts, requires constant resort to metaphor. The particular fact must be imaginatively fused with the general rule, for explicit inference will not link them as we wish, whether "we" signifies the wishful scientific intellect or the wishful poetic sensibility. If science begins with metaphors and ends with algebra, as a perceptive philosopher

has remarked,¹⁴⁵ the discipline of history seems destined to remain betwixt and between. Even if such essays as Marx's Eighteenth Brumaire could be transformed into the equations of some future social science, the result would be as pointless as an algebraic translation of Flaubert's Sentimental Education, a reconstruction of the 1848 revolution as straightforward fiction. Our sensibility does not want what our intellect cannot in any case provide, what it can only dream of as science fantasy.¹⁴⁶

After Marx as before, the discipline of history remains an anomaly to would-be social scientists. Herbert Spencer, who was far more singleminded than Marx in his dream of social science, neatly expressed the impatience with history that informs such a dream:

My position, stated briefly, is that until you have got a true theory of humanity, you cannot interpret history; and when you have got a true theory of humanity you do not want history. You can draw no inference from the facts and alleged facts of history without your conceptions of human nature entering into that inference: and unless your conceptions of human nature are true your inference will be vicious. But if your conceptions of human nature be true you need none of the inferences drawn from history for your guidance. If you ask how is one to get a true theory of humanity, I reply--study it in the facts you see around you and in the general laws of life.¹⁴⁷

Spencer offered a facile reconciliation: a science of human beings is possible, yet history will still be useful, as a teaching device, to make the laws of sociology vivid. History will be sociology teaching by example. A century later sociologists are far less confident than Spencer of their ability to frame laws for history to exemplify. On its side, the discipline of history, still a world apart from social

science, is troubled now by infirmity of purpose. Some historians yearn for science, others for art, while most take fretful shelter in their clerkly role, as meticulous recorders of deeds.

And where, in the confusion between social science and history, should psychology come in? Nowhere, as far as the prerevolutionary Marxists were concerned. Before the Soviet period they simply ignored the science of psychology. It is nowhere discussed in any of Marx's voluminous publications. One must go back to the manuscripts of 1844 to find the one place where he jotted down an opinion on the subject, and it is an opinion that makes the subsequent indifference understandable. Marx simply brushed off any science of psychology that would encompass less than the development of "generic being," that is, the evolving human mind revealed in its socio-economic work through the ages:

We see how the history of industry, and the existence of industry as something apart from us, are the book of humanity's essential human powers thrown open, human psychology presented to our senses. Up to now it has been comprehended not in its connection with the human essence, but only in an external, utilitarian relationship, because, moving within alienation, we could comprehend only man's general existence--religion, or history in its abstract general form of politics, art, literature, etc.--as the reality of humanity's essential powers and as the generic action of humanity. . . . A psychology for which this book [the history of productive practice] . . . is closed cannot become a real science with a genuine content. . . .148

Young Marx made similar criticisms of philosophy and the natural sciences. In their past and present form they were theoretical expressions of human alienation, aspects of human experience turned into inhuman objects. In the future, as humanity overcame alienation,

philosophy and the separate sciences would be fused into a single human science of man and nature together.

The natural sciences have developed an enormous activity and have taken over an ever-growing mass of material. Philosophy, however, has remained just as alien to them as they remain to philosophy. . . . But the more that natural science has in practice, by means of industry, laid hold of human life and transformed it and prepared for human emancipation, to that same extent its immediate result had to be the completion of dehumanization. Industry is the genuine historical relationship of nature, and therefore of natural science, to man. . . . History itself is a genuine part of natural history, of nature developing into man. Natural science will later on incorporate into itself the science of man, just as the science of man will incorporate natural science into itself: there will be one science.¹⁴⁹

If Marx had published that romantic effusion, and had gone on writing and publishing such dreams of a single humanized science overcoming the present clutter of alienated disciplines, he would have had very little influence either on his century or on ours. He would be remembered only by a few historians, as another of the philosophical critics of science who played a minor counterpoint to the dominant celebration of science during the 19th century.¹⁵⁰ As we have seen, Marx turned against such philosophical criticism; he scorned it as disguised surrender to an imperfect world on the pretext of changing it through criticism.¹⁵¹ He set to work on a joint revolution in social science and in society, and his greatest impact has been in the interaction of the two realms. Parties emerged invoking his teaching, claiming to be both scientific and revolutionary, insisting that philosophy and social science justify themselves in the arena of revolutionary praxis.

The mixture of such disparate elements can have many different results--sometimes exalting, sometimes catastrophic, sometimes absurd--but the first result was vapid. Aside from economics and historical sociology, where Marx did indeed begin an intellectual revolution, he and his disciples drifted with the tide of 19th-century thought, away from the metaphysical romanticism of his youth toward a sort of positivism in his old age.¹⁵² In the political arena revolutionary praxis was constantly frustrated and postponed, while the desire to unify knowledge never got beyond the preliminary upheaval in economics and historical sociology. The result in thought as in political activity was that talkative expectation took the place of action to achieve the long-run goals. Dreams of great transformations in the future sanctified busy accommodation to present realities. The German Social Democratic Party and a Marxist version of synthetic positivism emerged together.

The first clear revelation of this trend came in the late 1870s, when Marx's growing appeal to German socialists was challenged by a rival thinker, Eugen Dühring, a blind zealot who taught at the University of Berlin until he was fired for his radicalism. He offered a complete system, a synthetic picture of the universal process and of human destiny within it--a "scientific" system, of course, accompanied by denunciation of metaphysics.¹⁵³ Engels countered with a long polemic, Mr. Eugen Dühring's Revolution in Science, which not only attacked Dühring's system but offered a Marxist substitute, a vision

of science and society developing together toward socialism. At least it was long accepted as a Marxist substitute, by Karl Marx to begin with. (As Engels wrote it, he read it to Marx, who contributed a chapter.¹⁵⁴) In recent years philosophical admirers of the early Marx, scholars who would disembarass him of scientific claims and responsibilities, have tried to construct a wall between his thought and Engels' popularization of it.¹⁵⁵ In creative philosophy or poetry such fictions are permissible, but not in the discipline of history. The voluminous correspondence of the two friends, which shows that they could and did disagree, does not offer the slightest evidence to suggest Marx's disapproval of Anti-Duhring.¹⁵⁶

On the other hand, it is inaccurate to picture Anti-Duhring as synthetic positivism pure and simple, without any traces of the Hegelian philosophy that had been young Engels' point of departure as it had been Marx's.¹⁵⁷ To be sure, middle-aged Engels offered no talk of expanding the science of physiology to include sense as subjective feeling, as comprehension, and as æsthetic appreciation. Nor did he demand that the fledgling science of psychology turn to socio-economic history for an understanding of the human mind. He simply ignored psychology in his survey of the sciences, and portrayed physiology without criticism in the same rosy light as the other natural sciences. They were discovering the truth in their sectors as social science was in its, now that Marx had revolutionized it. Metaphysical speculation was no longer necessary:

As soon as each separate science is required to get clarity as to its position in the great totality of things and of our knowledge of things, a special science dealing with this totality is superfluous. What still independently survives of all former philosophy is the science of thought and its laws--formal logic and dialectics. Everything else is merged in the positive science of nature and history.¹⁵⁸

Within that main theme of synthetic positivism the reference to dialectics was a jarring echo of the Hegelian past. When Engels defined dialectics as "the science of general laws of motion and development of nature [and] human society"¹⁵⁹ as well as thought, he seemed to be resurrecting what he had just declared superfluous. Knowledge was to be unified not just by the aggregation of existing disciplines but also by a philosophical discipline of the whole, a discipline that would somehow transcend the others.

It would be a distortion of Engels' meaning to read a lot of metaphysical arrogance into his "dialectical laws of motion" that govern natural and human history. In context they were a Marxist analogue to Spencer's laws of universal process: grand enough to inspire awe, vague enough to avoid refutation. They were a benediction on the work of scholars in their scattered fields, a prayer for future coherence, not a serious demand that all must come back together under the rule of philosophy. But implicit in that positivistic benediction were potential dangers far more serious than the vestigial metaphysics in the talk of dialectical laws. The positivist outlook pointed to some future time when the particular sciences would spontaneously cohere in a unified body of knowledge, which would bring great social benefit

together with intellectual gratification. If that future should endlessly fail to arrive, would the faith in it wither, leaving scientists with a deadening sense of pointlessness? Worse yet, what if impatient believers should turn on the disappointing scientists and demand that the future arrive right away?

In the great ages of religious faith even the otherworldly dreams of the traditional creeds tended to provoke depression or rebellion by deferring hope too long. The positivist faith in unified knowledge was more vulnerable to both of these dangers, for it scorned otherworldly dreams and explicitly pledged fulfillment in this world. One way or the other Anti-Dühring pointed unwittingly to the self-destructive nature of synthetic positivism, its Marxist version included. Either the dream of the world transformed by unified scientific knowledge breeds acknowledgement of self-defeat, as it has in the case of 20th-century positivists and some communities of Marxists. Or the dream erupts in forceful revolt against the actual, disappointing trends of intellectual and social development, as it has among other communities of Marxists. Social and political conditions within particular countries determine which temper will prevail. Human scientists who are not Marxists have no right to feel smugly superior. They avoid such dilemmas and embarrassments only to the extent that they repress the yearning for intellectual coherence and social usefulness that animated Comte and Spencer--and Mach and Durkheim--as well as Marx.

Even with such stunted minds they cannot escape ideology, another self-contradictory element in the human sciences. Marx's major contribution to the subversion of faith in science was probably his concept of ideology as false consciousness, the equivalent for social mentalities of rationalization in individual psychology.¹⁶⁰ These kindred notions of Marx and Freud subverted naive self-assurance, and put self-conscious shame in its place: beliefs about ourselves are subject to suspicion of self-serving, of being believed not because they have been proved true but because they serve some interest of the individual believer (rationalization) or the group of believers (ideology). Non-Marxists who reject such an approach to their own beliefs love to use it against Marxists, who are indeed an inviting target. If we ask, for example, what features of Anti-Dühring won it primacy as the introduction to Marxism for two or three generations of Social Democrats and Communists (from the 1880s to the 1930s), the most obvious answer is that it gave them facile reassurance. It instilled confidence that Marxist parties were guided by scientific truth toward the socialist transformation of the world. It avoided disturbance of that confidence by avoiding the perplexities that Marxism shares with other attempts at a scientific understanding of human beings. For example, Engels did not examine the possibility that Marxism may be another form of false consciousness.

Nevertheless Anti-Dühring is profound scholarship when compared with the popularizations of Marxism that replaced it, such as Stalin's

pamphlet, on dialectical materialism or Mao's little red book. It is tempting to call that sequence, from Marx and Engels to Stalin and Mao, a descent from genuine thought to newspeak, to a mass ideology shaped more by the psychological requirements of manipulating masses than by the logical requirements of scholarly inquiry. But it is also possible to call that sequence an ascent from the thought that only moves a scholar's pen to the thought that moves masses. Either way one looks at the human sciences, with the philosophical interest in interpreting the human world or with the revolutionary interest in changing it--or the conservative interest in resisting change--one seems to be mocking at the effort to discover useful truth. Scientific truth and political utility seem to be mutually exclusive.

Consider the dilemma in general terms. If beliefs about ourselves are subject to the suspicion of self-serving, of being believed not because they have been proved true but because they serve some interest of the believers, the analyst of such beliefs is in a bind. He may seek some privileged vantage point, and there claim the unique power to explain without bias why the beliefs of others are biased. But that claim opens him to the charge of a self-serving double standard, and he is stuck again to the flypaper of ideology, which turns analysis into accusation, the scholar into the prosecutor. If he accepts that transformation, he moves the human sciences from a forum for reasoned discourse into an arena of warring interest groups, where ideas are valued for their effectiveness as instruments of social

solidarity or conflict rather than their demonstrable truth.¹⁶¹ Either way the analyst of ideology subverts his own claim to impartial truth along with the claims he is analyzing.

Marx took the first course; he sought a privileged vantage point as the spokesman of the industrial proletariat, the class he pictured as having no interest in distorting the truth about society. Hence the passionate self-righteousness that inflames his arguments, and the unrestrained invective against "hired prizefighters of the ruling class," as rival theorists often appeared to him. In that passion one may see Marx slipping unawares toward the second course, toward the arena where beliefs are weapons rather than proposals for reasoned discourse. If he had consciously chosen that course (and moved to a country with sufficiently flammable conditions), he might have arrived at Stalin's or Mao's elevation above uniformed masses chanting their devotion to his thought.

Scholars who recoil from that prospect may insist that reasoned discourse must obtain in the human sciences as in any field of inquiry. Ad hominem arguments must be ruled out of order here as elsewhere. Beliefs must be judged according to their logical and evidential merit, not according to the motives or interests we may impute to the believers. That way we escape the dilemma that the concept of ideology imposes, but we also lose the right to use the concept. We have forbidden ourselves to ask what interests or subconscious motives or latent social functions attach groups of people to various forms of false

consciousness. Yet we can hardly forswear that inquiry while aspiring to an understanding of human beings, for the false consciousness of groups is an overwhelmingly obvious fact of social life. After Marx pointed it out, innocence of that fact is impossible, or self-serving pretense.

I confess that I have no solution for this problem. It is especially acute when it is least recognized, for example, among Western students of Communist societies, who tend to assume without question that "we" hold the privileged ground of reason in analyzing "their" false consciousness. When scholars recognize that "our" privileged vantage point may well be another ideology, they may fall into cynical lassitude, or worse yet they may be tempted by the frankly irrational view that beliefs are mere instruments of social solidarity or conflict, to which the question of truth or falsehood is irrelevant. I reject that view. Better a struggle among contenders for the privileged vantage point of reason, even if it should prove unattainable, than descent into a chaos of prizefighters for warring interest groups. In such a situation it is tempting to grasp at William James's homespun advice, when he confronted the irremediable subjectivity of comparative psychology: "The only thing then is to use as much sagacity as you possess, and to be as candid as you can."¹⁶²

But that is a milk-and-water antidote for the poisonous conclusions I have reached. The trouble with Marxism, as with other efforts in the human sciences, is not so much their demonstrable errors¹⁶³ as

it is their justifiable truths. They make sense separately, subvert each other when joined, and one way or another alienate non-scientific modes of understanding human beings, such as common sense, the literary imagination, and the ideological beliefs that bind people in communities. Physiology was the first undeniably successful application of rigorous science to human beings, and it required mechanistic assumptions that excluded the mind from the body, or rather, excluded study of the mind from study of the body. The effort to create a separate science of mental life led back to the exclusion of mind, this time from the science of mental life, and also to the breakdown of psychological science into a clutter of schools so deeply at odds with each other that polemical contention among them soon gave way to sullen disregard. Poets and other humanists were early and permanently alienated from any form of human science as a contradiction in terms: if scientific it cannot be human, if human not scientific, for science tries to explain persons by turning them into things, that is, by abstracting and reifying some aspect of their integral human being, the essence that is the ultimate goal of the humanist's search.

Marx's efforts to overcome such dehumanization pointed in incompatible directions, as the continuing cleavages among his admirers indicate. His youthful philosophizing about the human essence has been revived by some 20th-century admirers as a reproach to social scientists, including those who call themselves Marxists.¹⁶⁴ It is hard for such philosophical dreamers to avoid reproaching Marx, for his lifelong

effort to transform economics into a humanistic science succeeded only in posing great problems that economists cannot solve, while still treating human beings as impersonal things. In common with other aspirants to a humanistic science of human beings, Marx failed. His dream of a genuinely human society remained a poetic fiction at odds with his science, and there seems to be no way of reconciling anyone's version of the human sciences with any version of the poetic or ideological fictions that are essential to human life.*

Some may think that a problem only for humanists, since scientists have shown little concern for it, while the robust men who do the world's business and run its governments have shown even less--with the significant exception of Communist rulers. There is indeed a standard repertory of incantations to fend off the incoherence of modern culture, whenever disaffected humanists call attention to it. The old-fashioned separation of faith from reason, refurbished in modern lingo as the independence of values and science, is constantly used to smother consideration of the moral and aesthetic implications of the

* It is not a reconciliation to note that the act of creating or appreciating the human sciences is psychologically analogous to the creation or appreciation of fictive art, for the analogy applies only to the psychology of the processes, not to their diverse products. We are overwhelmed with evidence that the products are intellectually incoherent. To ignore that evidence, to see only the analogous strains and satisfactions of scientific and artistic activity, is to surrender to the shallow hedonism of the age, which reduces science and art to pleasurable tension and release much as love is reduced to sex. Freud's tragic theory is turned into a reductionist smirk. Cathexis and sublimation become "getting it on" and "getting off," with any tool that comes to hand.

human sciences. To those who murmur at the intellectual incoherence of the human sciences--never mind values and feelings--the stock reassurance is simply, "Wait." Division of labor, we are told, compels neurophysiologists, psychologists, sociologists, anthropologists, economists, and historians to study different aspects of human beings--and to split up further into rival schools--but this preliminary butchering of the subject will supposedly regenerate the whole creature later on. Sometimes that faith is expressed with the poignance of religious yearning for the circle that will be completed in the world to come. Wilder Penfield, for example, summed up a life of brilliant studies in the borderland between neurology and psychology with this confession:

We have no basis on which to begin to understand the relation of mind to the brain. But the light of science will be brighter as the years pass, cast a wider circle, embrace things that lie beyond. I believe that understanding will come in time, with continued advance--not to us but to our successors.¹⁶⁵

I intend no discredit to a great scientist and sensitive spirit when I note that the record of the human sciences in the past two centuries speaks against his faith. He might have lost the will to persevere in brain studies, if he had seen that incoherence and alienation in human studies are far greater now than they were in the time of Hughlings Jackson and Wundt, not to speak of David Hartley and Diderot. My purpose in calling attention to that bleak trend is not to cut the nerve of striving among human scientists or to start a crusade for some new approach to an understanding of human beings. I have nothing new to propose; I am as much a product of our fragmented culture as any

of you. My immediate purpose is to reduce the philistine narrowness and smug self-deceptions that are so widespread among human scientists, and to lay the proper groundwork for understanding Marxist-Leninist ventures in the human sciences. Their scandalous and self-defeating efforts to stamp out the fragmentation of culture derive in large part from the genuine crisis of fragmentation, which we share with them. Their reactions have been partly hallucinatory and partly stupid, but the crisis has been real. Traditional ideologies have been subverted by the human sciences, which cannot provide a viable substitute.

Marxists of the late 19th and early 20th century shielded themselves from the intellectual collapse of the synthetic faith in science by declaring it a crisis of bourgeois ideology, not of Marxism or any other form of genuine science. It also helped that they paid little attention to most of the human sciences. Edward Bernstein, and the minority who agreed with him on the need for a revision of Marxist thought, focused on particular socio-economic and political issues--such as the immiseration of the proletariat and the necessity of insurrection--not on the crisis of fundamentals that I have been stressing here.¹⁶⁶ The revisionists also initiated some debate on the philosophy appropriate to Marxism, for they were dimly aware that Marxism was an incomplete effort at a science of humanity.¹⁶⁷ Orthodox Marxists, as the anti-revisionist majority were not ashamed to call themselves, denied that Marxism lacked an adequate philosophy, and asserted that Marxism was the core around which a complete human science would

naturally grow.¹⁶⁸ That confident equation of Marxism with social science pointed unwittingly in one of two very different directions, either toward the dissolution of Marxism as a separate trend or toward a revolt against existing trends.

Which way particular groups of Marxists would turn depended in large part on the social and political conditions of their countries. In Germany, where the long awaited revolution finally arrived as a feeble victory of parliamentary government within an unchanged social order, Marxists tended toward intellectual fusion with other trends of social and philosophical thought. In Russia, where the revolution arrived as a massive lower-class upheaval and a complete collapse of the old social and political order, the Bolsheviks proved to be successful mobilizers of lower-class revolutionary energies, in part because of their zealous conviction that they were guided by the one true science of society. Thus they were in the frame of mind to get angry, when they discovered that the bulk of specialists in the human sciences not only opposed them in politics but stood apart from them on most issues in the human sciences. The incoherent clutter of those disciplines and their insolent indifference to Marxism were a greater provocation than the relatively few points where there was clear confrontation between Marxist and non-Marxist ideas. For the Bolsheviks to acquiesce in that situation was to shrink in self-perception as in reality into another one of the many discordant claimants to the non-existent science of human beings.

Thus the subversive force of the human sciences was brought home to the Bolsheviks, as an abomination within the faith that animated their revolution. If it had been a case, as so many commentators have imagined, of a clash between the human sciences and a comprehensive Marxist theory in external opposition to each other, a standoff might have been arranged rather easily, as it had been in states with traditional ideologies, which did not claim to be scientific. The Tsarist regime, as we will see, achieved such a standoff in the half-century before it collapsed. After the revolution there was a clash of the severest kind, within a single faith, which was already deeply divided against itself, exciting the Bolsheviks to political intervention in science, for the sake of science.