

MAX WEBER

THE VOCATION LECTURES

“Science as a Vocation”
“Politics as a Vocation”

Edited and with an Introduction by
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Translation by
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SCIENCE AS A VOCATION

It is your wish that I should talk about “science as a vocation.”¹ Now, we political economists possess a certain pedantic streak that I should like to retain. It is expressed in the fact that we always start from external circumstances. In this instance this means starting with the question: What form does science take as a profession in the material sense of the word? In practical terms this amounts nowadays to the question: What is the situation of a graduate student who is intent on an academic career in the university? In order to understand the particular nature of circumstances in Germany it will be helpful to proceed comparatively and to see how matters stand abroad, above all in the United States, which in this respect presents the sharpest possible contrast with us.

As everyone knows, here in Germany the career of a young man who chooses science as a profession normally begins as a “lecturer” [*Privatdozent*]. After consulting with and gaining the approval of a representative of the relevant discipline, he qualifies² as a university lecturer on the basis of a book and an examination—something of a formality for the most part—in the presence of the faculty as a whole. He then gives lectures on topics of his own choosing within the limits of the *venia legendi*, his license to teach. For this he

¹ The German word *Beruf* has a workaday meaning of “profession” but, rooted as it is in *rufen*, “to call,” has strong overtones of “vocation” or “calling.” Both meanings are active in Weber’s usage, and each has been used here where it seemed appropriate. The term *Wissenschaft* means “science” but can refer to any academic discipline or body of knowledge. Thus not only the social sciences but even literary studies, musicology, or linguistics are all called *Wissenschaft*. I have kept “science” here, even though it may seem strange to the English reader who is accustomed to using it with reference to the natural sciences. But I have also used “scholarship” or “studies” and the adjective “academic” where English usage required it.

² This refers to the German *Habilitation*, a second doctorate by dissertation that is usually taken about ten years after the Ph.D. and serves as the springboard to an academic career.

receives no salary, and he is rewarded only with the lecture fees paid by his students.³ In America an academic career normally begins quite differently, namely, with an appointment as an “assistant.” This is similar to what happens in Germany in the large institutes of the natural sciences and medicine, where the second doctorate, which is the formal qualification of a lecturer, is obtained only by a fraction of the assistants, and then often only late in their careers. The difference means in practice that in Germany an academic career is generally based on plutocratic premises. For it is extremely risky for a young scholar without private means to expose himself to the conditions of an academic career. He must be able to survive at least for a number of years without knowing whether he has any prospects of obtaining a position that will enable him to support himself. The United States, in contrast, has a bureaucratic system. A young man receives a salary from the outset—a modest one, to be sure. His salary barely amounts to the wages of a worker one rung above an unskilled laborer. Even so, having a fixed salary, he begins with an apparently secure position. However, as a rule, he can be dismissed, like our assistants, and frequently he must reckon that the authorities will not hesitate to dismiss him if he fails to meet their expectations. What is expected is that he will achieve “full houses.” This cannot happen to a German *Privatdozent*. Once you have him, there is no getting rid of him. It is true that he has no “rights.” But he does have the understandable expectation that if he has worked for years on end he has a kind of moral claim to consideration. This includes being considered—and this is frequently important—in the context of the possible appointment of other lecturers. This raises the question of whether on principle every competent scholar should be allowed to qualify, or whether “teaching needs” should be taken into account. Since this effectively gives the existing lecturers a teaching monopoly, a painful dilemma arises that is closely related to the dual aspect of the academic profession, which will be discussed shortly. For the most part, the second option is chosen. But that increases the risk that however conscientious he may be subjectively, the relevant department head will end up giving preference to his own students. Personally, I should make it clear that I have

³ German students used to have a *Studienbuch*, a notebook in which they registered the courses they were taking in their field. They then had to pay a fixed fee for each course. For staff on a full salary—that is, professors—these tuition fees were a welcome extra. For the unsalaried *Privatdozent*, these fees were the sole source of income.

always followed the principle that a scholar whom I have supervised for his Ph.D. should apply to *someone else* to study for the second doctorate and thus legitimate himself elsewhere. But as a consequence one of my best students found himself rejected by another university since no one would *believe* that this was my reason.

There is a further difference between America and Germany. This is that in Germany the lecturer is *less* concerned with lecturing than he might wish. He does indeed have the right to lecture on any topic in his discipline. But to make use of that right is thought to show an unseemly lack of respect toward lecturers with greater seniority, and as a rule the “major” lectures are given by the professor as the departmental representative of the discipline while the lecturer makes do with ancillary lectures. The advantage of this is that he can devote his early years to research, even though he may not do so entirely voluntarily.

In America the system is organized on entirely different principles. In his early years the young lecturer is completely overloaded precisely because he is *paid*. In a department of German studies, for example, the full professor will give a three-hour course of lectures a week on, say, Goethe, and that is all, while the junior university assistant will have twelve hours teaching a week, including the duty of drumming the basics of German grammar into students’ heads, and he will be happy if he is assigned the task of lecturing on writers up to the rank of, say, Uhland.⁴ For the syllabus is prescribed by the departmental authorities and the assistant is as dependent on them as the institute assistant is in Germany.

Now we can see very clearly that the latest developments across broad sectors of the German university system are moving in the same direction as in America. The major institutes of science and medicine are “state-capitalist” enterprises. They cannot be administered without funding on a huge scale. So we see the situation that exists wherever capitalist operations are to be found, namely, the “separation of the worker from the means of production.” The worker, in this instance the assistant, is dependent on the resources that are provided by the state. He is as dependent on the institute director, therefore, as an employee in a factory is dependent on his boss—for the institute director believes in good faith that this institute is *his* institute and

⁴ Ludwig Uhland (1787–1862) was a romantic poet who made his name with ballads and poems in a folk style. He also wrote political poetry with a strongly patriotic emphasis. He was always in the second rank and, while still famous in Weber’s day, he is now largely neglected, surviving chiefly in school anthologies.

that it is his to manage. The assistant's situation, then, is as precarious as that of every "quasi-proletarian" existence and as that of an assistant⁵ in an American university.

Our German university life is becoming Americanized in very important respects, as is German life in general. I am convinced that this development will continue to spread to disciplines like my own where the artisan is still the owner of his own resources (which amount essentially to the library), just as the old craftsman of the past owned the tools of his trade. This development is in full swing.

Its technical advantages are beyond doubt, as is the case with all capitalist and bureaucratized activities. But the "spirit" that prevails in them is different from the traditional climate of German universities. Both outwardly and inwardly, a vast gulf separates the head of a large capitalist university enterprise of this kind and the average old-style full professor. This applies also to their inner attitude, though I cannot go into that here. Both in essence and appearance, the old *constitution* of the university has become a fiction. What has remained and has even been radically intensified is a feature peculiar to a university *career*. This is the fact that for a lecturer, let alone an assistant, to succeed in rising to the position of a full professor or even the head of an institute is purely a matter of *luck*. Chance is not the only factor, but its influence is quite exceptional. I know of scarcely any other profession on earth where it plays such a crucial role. I feel at liberty to make this claim since I personally owe it to a number of purely chance factors that I was appointed to a full professorship while still very young⁶ in a discipline in which people of my own age had undoubtedly achieved more than I. And it is this experience that encourages me to believe that I have developed a keen eye for the undeserved fate of the many whom chance has treated, and continues to treat, in the opposite way and who have failed, for all their abilities, to obtain a position that should rightfully be theirs through this selection process.

That chance, rather than ability, plays such an important role, is not exclusively or even chiefly the product of the human factors that are just as prevalent in the selection process in universities as in any other. It would be unjust to blame personal shortcomings in either faculties or the Ministries of Education for the fact that so many

⁵ Weber used the English word.

⁶ Weber was made a full professor in what was then known as political economy (a social science that focused on the state and its resources) at the University of Freiburg in 1895, when he was only thirty-one.

mediocrities occupy leading positions in our universities. The cause is to be sought instead in the laws governing human cooperation, especially the cooperation of a number of different bodies, in this instance, the proposing faculties and the ministries.⁷ By way of comparison we can observe the events that have taken place over many centuries in the course of papal elections: the most important verifiable example of a comparable selection process. It is rare for the cardinal who is said to be the "favorite" to have any prospects of success. As a rule, the second or third candidate on the list is selected. The same may be said of the president of the United States. Only exceptionally does the first-rate, outstanding candidate manage to obtain the "nomination" of the party conventions and subsequently run in the election. Mainly it is the number two or number three man. The Americans have already devised technical sociological expressions for all these categories, and it would be interesting to use these examples to study the laws governing this process of selection through the formation of a collective will. However, we cannot do this today. But these laws also apply to university staff, and what is astonishing is not that mistakes are often made, but that, despite everything, the number of *good* appointments is relatively large. Only where parliaments intervene for *political* reasons, as happens in a number of countries, can we be sure that only safe mediocrities or careerists will have prospects of obtaining appointments. The same thing may be said of countries like Germany, where monarchs interfered for similar reasons and where, at present, revolutionary leaders do likewise.

No university teacher likes dwelling on the discussions that precede the filling of posts, for they are seldom pleasant. And yet I can say that in the numerous cases known to me, the sincere *intention* to reach decisions on purely objective grounds was always present without exception.

For we must make a further attempt at clarification. The fact that chance plays such a major role in deciding academic destinies does not spring from the defects of collective decision-making as a part of the selection process. Every young man who feels he has a vocation as a scholar must be aware that the task awaiting him has a dual aspect. He must be properly qualified not only as a scholar, but also as a teacher. And these two things are by no means identical. A man

⁷ In Germany professors are civil servants and are still appointed by a procedure in which the faculties submit a shortlist of names to the Ministry of Education, which then makes the final choice.

can be both an outstanding scholar and an execrable teacher. I may remind you of the teaching activities of such men as Helmholtz or Ranke.⁸ And these are far from being isolated cases. Now the present situation is that our German universities, especially the smaller ones, are caught up in a ludicrous popularity contest. The local landlords in our university towns celebrate the arrival of the thousandth student with a party but would like to welcome the two thousandth with a torchlight procession. "Crowd-pleasing" appointments in neighboring disciplines have a considerable impact on lecture fees, and we should be quite frank about this. And even if we leave that aside, the number of enrolled students is a statistically tangible proof of success, whereas the qualities of a scholar are imponderable and frequently (and very naturally) a matter of dispute, particularly in the case of bold innovators.

For this reason almost everyone succumbs to the idea that large student numbers are a blessing and a value in their own right. If a lecturer is said to be a bad teacher, this amounts in most cases to an academic death warrant, even if he is the greatest scholar in the world. But the question of whether an academic is a good teacher or a bad one is answered with reference to the frequency with which students honor him with their presence. However, it is also true that the fact that students flock to a teacher is determined largely by purely extraneous factors such as his personality or even his tone of voice—to a degree that might scarcely be thought possible.

After extensive experience and sober reflection on the subject, I have developed a profound distrust of lecture courses that attract large numbers, unavoidable though they may be. Democracy is all very well in its rightful place. In contrast, academic training of the kind that we are supposed to provide in keeping with the German university tradition is a matter of *aristocratic spirit*, and we must be under no illusions about this. On the other hand, it is quite true that perhaps the most challenging pedagogic task of all is to explain scientific problems in such a way as to make them comprehensible to an untrained but receptive mind, and to enable such a person—and this is the only decisive factor for us—to think about them independently. There can be no doubt about this, but it is not student numbers that

⁸ Hermann Helmholtz (1821–94) was one of the outstanding German scientists of the nineteenth century, notable for his contributions in both physics and physiology. His achievements include the formulation of the principle of the conservation of energy. Leopold von Ranke (1795–1886) was a leading German historian whose search for historical objectivity greatly influenced historiography throughout Europe. Both had chairs in Berlin.

decide whether this task has been accomplished. And—to return to our theme—the art of teaching is a personal gift and does not necessarily coincide with a scholar's qualities as a researcher. Unlike France, however, we have no body comprising the "Immortals" of learning, while in the German tradition the universities are supposed to do justice to both tasks, research and teaching. But whether the talents needed for this can be united in a single individual is a matter of pure chance.

Thus academic life is an utter gamble. When young students come to me to seek advice about qualifying as a lecturer, the responsibility of giving it is scarcely to be borne. Of course, if the student is a Jew, you can only say: *lasciate ogni speranza*.⁹ But others, too, must be asked to examine their conscience: Do you believe that you can bear to see one mediocrity after another being promoted over your head year after year, without your becoming embittered and warped? Needless to say, you always receive the same answer: of course, I live only for my "vocation"—but I, at least, have found only a handful of people who have survived this process without injury to their personality.

So much for the external conditions of a scholarly vocation.

But I believe that you really want to hear about something else, about an *inner* vocation for science. At the present time, that inner vocation, in contrast to the external organization of science as a profession, is determined in the first instance by the fact that science has entered a stage of specialization that has no precedent and that will continue for all time. Not just outwardly, but above all inwardly, the position is that only through rigorous specialization can the individual experience the certain satisfaction that he has achieved something perfect in the realm of learning. With every piece of work that strays into neighboring territory, work of the kind that we occasionally undertake and that sociologists, for example, must necessarily produce, we must resign ourselves to the realization that the best we can hope for is to provide the expert with useful *questions* of the sort that he may not easily discover for himself from his own vantage point inside his discipline. Our own work, however, will inevitably remain highly imperfect. Only rigorous specialization can give the scholar the feeling for what may be the one and only time in his entire life, that here he has achieved something that will *last*.

⁹ *Lasciate ogni speranza [voi ch'entrate]!* (Abandon all hope, [ye who enter here]!), Dante, *Inferno*, canto 3, line 9. This is the inscription on the lintel above the gate of Hell.

Nowadays, a really definitive and valuable achievement is always the product of specialization. And anyone who lacks the ability to don blinkers for once and to convince himself that the destiny of his soul depends upon whether he is right to make precisely this conjecture and no other at this point in his manuscript should keep well away from science. He will never be able to submit to what we may call the "experience" of science. In the absence of this strange intoxication that outsiders greet with a pitying smile, without this passion, this conviction that "millennia had to pass before you were born, and millennia more must wait in silence" to see if your conjecture will be confirmed—without this you do *not* possess this vocation for science and should turn your hand to something else. For nothing has any value for a human being as a human being unless he *can* pursue it with *passion*.

Nevertheless, the fact remains that however genuine and profound such a passion may be, it is a far cry from guaranteeing success. Passion is, of course, a precondition of the decisive factor, namely, "inspiration." Among young people nowadays the idea is very widespread that science has become a question of simple calculation, something produced in laboratories or statistical card indexes, just as "in a factory," with nothing but cold reason and not with the entire "soul." Though of course we should note in passing that for the most part there is very little understanding of what actually goes on in a factory or a laboratory. In both places it is necessary for something, and the right thing at that, to *occur* to people if they are to achieve anything worthwhile.

But inspiration cannot be produced to order. And it has nothing in common with cold calculation. Undoubtedly, calculation, too, is an unavoidable prerequisite. For example, no sociologist, even when advanced in years, should think himself too high and mighty to spend months on end doing tens of thousands of quite trivial sums in his head. You cannot shift the burden entirely to mechanical aids with impunity if you want to achieve anything, and what you do achieve is often little enough. But if you do not have a definite idea about the purpose of your calculation, and if during the calculation nothing "occurs" to you about the implications of the individual answers as they arise, then even that "little" will fail to appear. Normally, inspiration flourishes only on a foundation of very hard work. Not always, of course. The inspiration of an amateur can be as productive scientifically as that of an expert, or even more so. We owe many of our very best methods of tackling problems and our best insights to amateurs. The only difference between an amateur

and an expert is, as Helmholtz observed about Robert Mayer,¹⁰ that the amateur lacks a tried and tested method of working. He is therefore mainly not in a position to judge or evaluate or pursue the implications of his inspiration. Inspiration does not do away with the need for work. And for its part, work cannot replace inspiration or force it to appear, any more than passion can. Both work and passion, and especially both *together*, can entice an idea. Ideas come in their own good time, not when we want them. In fact, the best ideas occur to us while smoking a cigar on the sofa, as Ihering¹¹ says, or during a walk up a gently rising street, as Helmholtz observes of himself with scientific precision, or in some such way. At any rate, ideas come when they are least expected, rather than while you are racking your brains at your desk. But by the same token, they would not have made their appearance if we had not spent many hours pondering at our desks or brooding passionately over the problems facing us.

However that may be, the scholar must resign himself to the element of chance that is involved in every kind of scientific endeavor. It is expressed in the question: Will inspiration come or not? A man may be an outstanding worker and yet never have had a valuable idea of his own. But it is a grave error to imagine that this is true only of science and that in an office, for example, the situation is different from a laboratory. A businessman or a big industrialist without "commercial imagination," that is to say, without inspiration or brilliant ideas will continue his whole life long to be someone who ought rather to be a clerk or a technical official. He will never introduce organizational innovations. It is not at all the case—as academic conceit would have us believe—that inspiration plays a greater role in science than in the solving of the problems of practical life by the modern entrepreneur. And on the other hand, people often fail to recognize that inspiration does not play a smaller part in science than in the realm of art. It is childish to imagine that a mathematician will arrive at any kind of valuable scientific discoveries by sitting at a desk with a ruler or other mechanical tools or calculators. The mathematical imagination of a

¹⁰ Robert Mayer (1814–78) was a German doctor who made his name following his observation that in the Tropics the color difference between venous and arterial blood was smaller than in temperate climates. He inferred that the higher temperatures made it unnecessary to convert as much food in order to conserve body heat as in colder latitudes. This led him to develop an influential theory of the equivalence of heat and physical labor.

¹¹ Rudolph von Ihering (1818–92), jurist and professor at Göttingen from 1872 on.

Weierstrass¹² is, of course, organized very differently both in its meaning and its consequences from that of an artist, and indeed, there is a fundamental difference in quality. But not in terms of the psychological process involved. Both are intoxication (in the sense of Plato's "mania")¹³ and "inspiration."

Now, whether someone has scientific inspiration depends on fates that are hidden from us, but also on "talent." It is not least this indisputable truth that has led to a belief that, understandably enough, is particularly popular among young people. Today, that belief has put itself at the service of a number of idols whose shrines are to be found today at every street corner and in every periodical. These idols are "personality" and "experience," and the two are closely connected. The idea is prevalent that experience forms the essence of personality and is an integral part of it. People put themselves through torture in order to "experience" things, for that is an essential part of the proper lifestyle of a "personality," and if they do not succeed they must at the very least try to act as if they possessed this gift of grace. Formerly, this "experience" [*Erlebnis*] was known in German as "sensation" [*Sensation*]. And I believe that the latter term provided a more accurate idea of what "personality" is and means.

Ladies and gentlemen, in the realm of science, the only person to have "personality" is the one who is *wholly devoted to his subject*. And this is true not just of science. We know of no great artist who has ever done anything other than devoted himself to his art and to that alone. Even a personality of Goethe's stature had to pay a price, as far as his art was concerned, for having taken the liberty of trying to turn his "life" into a work of art. And even if you question that this was his aim, you at least have to be Goethe to take that liberty. Moreover, it will surely be admitted that even a man like him, who appears only once in a thousand years, could not emerge from this wholly unscathed. In politics things are no different, but that cannot be discussed here today. Even in the realm of science, however, we may say categorically that if a man appears on the stage as the impresario of the subject to which he devotes himself and if he attempts to legitimate himself by appealing to his "personal experi-

¹² Karl Weierstrass (1815–97). He is regarded as one of the founding fathers of modern functional analysis.

¹³ For example, in *Phaedrus* 245 where Plato writes, "If a man comes to the door of poetry untouched by the madness of the Muses, believing that technique alone will make him a good poet, he and his sane compositions never reach perfection but are utterly eclipsed by performances of the inspired madman."

ence," this is not enough to turn him into a personality. Nor is it the sign of a personality to go on to ask: How can I show that I am more than just a mere "expert"? How can I manage to prove that I can say something in form or substance, that no one has ever said? This phenomenon has increased massively nowadays and always seems petty. It always diminishes the man who asks such questions instead of allowing his inner dedication to his task and to it alone to raise him to the height and the dignity of the cause he purports to serve. And in this respect, the situation with the artist is no different.

These preconditions of our work are factors that we share with art. But we now find them confronted with a destiny that opens up a vast gulf between science and artistic endeavors. Scientific work is harnessed to the course of *progress*. In the realm of art, however, there is no such thing as progress in that sense. It is untrue that a work of art that is created in an age which has developed new techniques, such as the laws of perspective, is somehow superior in purely artistic terms to a work of art that is innocent of all such techniques and laws. At least, such a work of art is not inferior *as long as* it does justice to its own form and materials, in other words, if it selects and shapes its object in a way that is appropriate even without those laws and techniques. A work of art that truly achieves "fulfillment" will never be surpassed; it will never grow old. The individual can assess its significance for himself personally in different ways. But no one will ever be able to say that a work that achieves genuine "fulfillment" in an artistic sense has been "superseded" by another work that likewise achieves "fulfillment."

Contrast that with the realm of science, where we all know that what we have achieved will be obsolete in ten, twenty, or fifty years. That is the fate, indeed, that is the very *meaning* of scientific work. It is subject to and dedicated to this meaning in quite a specific sense, in contrast to every other element of culture of which the same might be said in general. Every scientific "fulfillment" gives birth to new "questions" and *cries out* to be surpassed and rendered obsolete. Everyone who wishes to serve science has to resign himself to this. The products of science can undoubtedly remain important for a long time, as "objects of pleasure" because of their artistic qualities, or as a means of training others in scientific work. But we must repeat: to be superseded scientifically is not simply our fate but our goal. We cannot work without living in hope that others will advance beyond us. In principle, this progress is infinite.

This brings us to the *problem of the meaning* of science. For it is far from self-evident that a thing that is subject to such a law can

itself be meaningful and rational. What is the point of engaging in something that neither comes, nor can come, to an end in reality? Well, for one thing, we may engage in it for purely practical purposes, or technical purposes in a broader sense: namely, to enable us to orient our practical actions by the expectations provided by our scientific experience. All well and good. However, that has meaning only for the practical man. But what is the inner attitude of the scientist himself to his profession? If indeed he bothers to search for one. He maintains that science must be pursued "for its own sake," and not simply so that others can use it to achieve commercial or technical successes, so that they can feed or clothe themselves, make light for themselves, or govern themselves. What meaningful achievement can he hope for from activities that are always doomed to obsolescence? What can justify his readiness to harness himself to this specialized, never-ending enterprise? That question calls for some general reflections.

Scientific progress is a fraction, and indeed the most important fraction, of the process of intellectualization to which we have been subjected for thousands of years and which normally provokes extremely negative reactions nowadays.

Let us begin by making clear what is meant in practice by this intellectual process of rationalization through science and a science-based technology. Does it mean, for example, that each one of us sitting here in this lecture room has a greater knowledge of the conditions determining our lives than an Indian or a Hottentot? Hardly. Unless we happen to be physicists, those of us who travel by streetcar have not the faintest idea how that streetcar works. Nor have we any need to know it. It is enough for us to know that we can "count on" the behavior of the streetcar. We can base our own behavior on it. But we have no idea how to build a streetcar so that it will move. The savage has an incomparably greater knowledge of his tools. When we spend money, I would wager that even if there are political economists present in the lecture room, almost every one of them would have a different answer ready to the question of how money manages things so that you can sometimes buy a lot for it and sometimes only a little. The savage knows how to obtain his daily food and what institutions enable him to do so.

Thus the growing process of intellectualization and rationalization does *not* imply a growing understanding of the conditions under which we live. It means something quite different. It is the knowledge or the conviction that if *only we wished* to understand them we *could* do so at any time. It means that in principle, then, we

are not ruled by mysterious, unpredictable forces, but that, on the contrary, we can in principle *control everything by means of calculation*. That in turn means the disenchantment of the world. Unlike the savage for whom such forces existed, we need no longer have recourse to magic in order to control the spirits or pray to them. Instead, technology and calculation achieve our ends. This is the primary meaning of the process of intellectualization.

Let us consider this process of disenchantment that has been at work in Western culture for thousands of years and, in general, let us consider "progress," to which science belongs both as an integral part and a driving force. Can we say that it has any meaning over and above its practical and technical implications? This question has been raised on the level of principle in the works of Leo Tolstoy. He arrived at the problem by a curious route. What he brooded about increasingly was whether or not *death* has a meaning. His answer was that it had no meaning for a civilized person. His reasoning for this was that because the individual civilized life was situated within "progress" and infinity, it could not have an intrinsically meaningful end. For the man caught up in the chain of progress always has a further step in front of him; no one about to die can reach the pinnacle, for that lies beyond him in infinity. Abraham or any other peasant in olden times died "old and fulfilled by life"¹⁴ because he was part of an organic life cycle, because in the evening of his days his life had given him whatever it had to offer and because there were no riddles that he still wanted to solve. Hence he could have "enough" of life. A civilized man, however, who is inserted into a never-ending process by which civilization is enriched with ideas, knowledge, and problems may become "tired of life," but not fulfilled by it. For he can seize hold of only the minutest portion of the new ideas that the life of the mind continually produces, and what remains in his grasp is always merely provisional, never definitive. For this reason death is a meaningless event for him. And because death is meaningless, so, too, is civilized life, since its senseless "progressivity" condemns death to meaninglessness. This idea pervades all of Tolstoy's late novels,¹⁵ and it defines the keynote of art.

How should we respond to this? Does "progress" as such possess a recognizable meaning that goes beyond the technical so that

¹⁴ Genesis 25:8.

¹⁵ Weber evidently has such works as *The Death of Ivan Ilyich* (1886) and *Resurrection* (1899) in mind.

devotion to progress can become a meaningful vocation? This question cannot be avoided. But it ceases to be merely a question of a vocation *for* science, in other words, the problem of the meaning of science as a career for the person who chooses it. Instead, it turns into the question of what is the *vocation of science* within the totality of human life? And what is its value?

There is a vast gulf here between past and present. You will recall the marvelous image at the beginning of Book 7 of Plato's *Republic*. He describes there the cavemen in chains with their gaze directed at the wall of rock in front of them. Behind them lies the source of light that they cannot see; they see only the shadows the light casts on the wall, and they strive to discover the relationship between them. Until one of them succeeds in bursting his bonds and he turns around and catches sight of the sun. Blinded, he stumbles around, stammering about what he has seen. The others call him mad. But gradually he learns to look into the light, and his task then is to clamber down to the cavemen and lead them up into the light of day. He is the philosopher, while the sun is the truth of science, which alone does not snatch at illusions and shadows but seeks only true being.

Well, who regards science in this light today? Nowadays, the general feeling, particularly among young people, is the opposite, if anything. The ideas of science appear to be an otherworldly realm of artificial abstractions that strive to capture the blood and sap of real life in their scrawny hands without ever managing to do so. Here in life, however, in what Plato calls the shadow theater on the walls of the cave, we feel the pulse of authentic reality; in science we have derivative, lifeless will-o'-the-wisps and nothing else. How did this turnabout take place? Plato's passionate enthusiasm in the *Republic* is ultimately to be explained by the fact that for the first time the meaning of the *concept* had been consciously discovered, one of the greatest tools of all scientific knowledge. It was Socrates who discovered its implications. He was not alone in this respect. You can find very similar approaches in India to the kind of logic developed by Aristotle. But nowhere was its significance demonstrated with this degree of consciousness. In Greece for the first time there appeared a tool with which you could clamp someone into a logical vise so that he could not escape without admitting either that he knew nothing or that this and nothing else was the truth, the *eternal* truth that would never fade like the actions of the blind men in the cave. That was the tremendous insight of the pupils of Socrates. And it seemed to follow from this that once you

had discovered the correct concept for the beautiful, the good, or, let us say, courage, or the soul, or whatever it might be, you would have grasped its true nature. And this appeared to be the key to knowing and to teaching people how to act rightly in life, above all, as citizens. For this was the crucial issue for the Greeks, whose thought was political through and through. And that explains why science was a worthwhile activity.

This discovery by Greek philosophy was now joined during the period of the Renaissance by the second great tool of scientific work. This was rational experiment as a way of controlling experience reliably, without which modern empirical science would be impossible. There had been earlier experiments. For example, physiological experiments had been conducted in India in connection with the ascetic techniques of the Yogi, mathematical experiments for military purposes in ancient Greece, and there had also been experiments in the Middle Ages in such fields as mining. But to have elevated the experiment to the principle of research as such was the achievement of the Renaissance. The pioneers here were the great innovators in the realm of *art*, like Leonardo and his contemporaries. Of particular importance were the musical experimenters of the sixteenth century with their experimental keyboards. Starting from these men, the experiment migrated into science above all through Galileo, and it entered theory with Bacon. After that, it was adopted by the exact sciences in continental universities, beginning with Italy and the Netherlands.

What did science mean to these people on the threshold of modernity? For artistic experimenters like Leonardo and the musical innovators of the sixteenth century, it meant the path to *true* art, and for them this meant the path to true *nature*. Art should be elevated to the rank of a science, and this meant, above all, that the artist should be raised to the rank of a doctor,¹⁶ both socially and in terms of the meaning of his life. That, for instance, was the ambition underlying Leonardo's notebooks. And today? "Science as the path to nature"—that would be blasphemy in the ears of modern youth. No, it is the other way around. Young people today want release from the intellectualism of science in order to return to their own nature and hence to nature as such! And science as the way to art? Criticism is superfluous. But even more was expected of science in the age of the emergence of the exact natural sciences. Remember the statement by Jan Swammerdam: "I bring you the proof of God's

¹⁶ That is, the level of a university graduate with a doctorate.

providence in the anatomy of a louse.”¹⁷ You can see from this how scientific work conceived of its own task under the (indirect) influence of Protestantism and Puritanism. It thought of science as the way to God. That way was no longer to be discovered by the philosophers with their concepts and deductions. The fact that God could no longer be found where the Middle Ages had looked for him was known to the entire theology of Pietism of the day, Spener above all.¹⁸ God is hidden, his ways are not our ways, his thoughts are not our thoughts. In the exact natural sciences, however, where his works could be experienced physically, people cherished the hope that they would be able to find clues to his intentions for the world.

And today? Apart from the overgrown children who can still be found in the natural sciences, who imagines nowadays that a knowledge of astronomy or biology or physics or chemistry could teach us anything about the *meaning* of the world? How might we even begin to track down such a “meaning,” if indeed it exists? If anything at all, the natural sciences are more likely to ensure that the belief *that* the world has a “meaning” will wither at the root! And in particular, what about the idea of science as the path “to God”? Science, which is specifically alien to God? And today no one can really doubt in his heart of hearts that science is alien to God—whether or not he admits it to himself. Release from the rationalism and intellectualism of science is the fundamental premise of life in communion with the divine.

This, or something very like it, is one of the basic slogans that you hear from our young people who are religiously minded or in search of religious experience. And they are in search not just of religious experience, but of experience as such. The only surprising thing is the path they take. This is that the only realm that intellectualism had failed to touch until now, namely, the realm of the irrational, is what is now made conscious and subjected to intellectual scrutiny. For that is what the modern intellectualist romanticism of the irrational amounts to in practice. This method of liberating us

¹⁷ Jan Swammerdam (1637–80) was a Dutch naturalist who undertook pioneering studies with the microscope. Among other discoveries, he was the first to observe and describe red blood cells (1658). The quotation here is taken from his *Algemeene Verhandeling van bloedeloose diertjens* (1658) (*The Natural History of Insects*, 1792).

¹⁸ Philip Jakob Spener (1635–1705) was a leading figure of German Pietism. This movement initiated a spiritual renewal of Protestantism through an emphasis on personal improvement and upright conduct, which it held to be the most important manifestations of the Christian faith. It had a profound influence on German religious thought and, more generally, on German literature and culture.

from the intellect brings about the exact opposite of what is envisaged by those who adopt it. Thus a naive optimism had led people to glorify science, or rather the techniques of mastering the problems of life based on science, as the road to *happiness*. But after Nietzsche's annihilating criticism of those "last men" "who have discovered happiness,"¹⁹ I can probably ignore this completely. After all, who believes it—apart from some overgrown children in their professorial chairs or editorial offices?

Let us return to our theme. Given these internal assumptions, what is the meaning of science as a vocation now that all these earlier illusions—"the path to true existence," "the path to true art," "the path to true nature," "the path to the true God," "the path to true happiness"—have been shattered? The simplest reply was given by Tolstoy with his statement, "Science is meaningless because it has no answer to the only questions that matter to us: 'What should we do? How shall we live?'"²⁰ The fact that science cannot give us this answer is absolutely indisputable. The question is only in what sense does it give "no" answer, and whether or not it might after all prove useful for somebody who is able to ask the right question. People are wont to speak nowadays of a science "without presuppositions." Does such a thing exist? It depends on what is meant by it. Every piece of scientific work presupposes the validity of the rules of logic and method. These are the fundamental ways by which we orient ourselves in the world. Now, there is little to object to in these presuppositions, at least for our particular question. But science further assumes that the knowledge produced by any particular piece

¹⁹ "I tell you: one must have chaos in one, to give birth to a dancing star. . . . Alas! The time is coming when man will give birth to no more stars. Alas! The time of the most contemptible man is coming, the man who can no longer despise himself. Behold! I shall show you the *Last Man*. 'What is love? What is creation? What is longing? What is a star?' Thus asks the Last Man and blinks. . . . 'We have discovered Happiness,' say the Last Men and blink." See Nietzsche's *Thus Spoke Zarathustra*, translated by R. J. Hollingdale (Harmondsworth: Penguin, 1969), p. 46. Hollingdale prefers "the Ultimate Man."

²⁰ It has not been possible to find the definitive source of this quotation. The statement may be derived from Leo Tolstoy, "What Should We Do Then?" in Leo Weiner, trans., *Collected Works* (New York: AMS Press, 1968), vol. 17, pp. 249–89 (chapters 32–7). See note 15 above. More of Tolstoy's criticism of science can be found in Leo Tolstoy, *A Confession* and *What I Believe*, translated by Aylmer Mande (Oxford: Oxford University Press and London: Humphrey Milford, 1938). In Chapter 5 he describes how he is "brought to the verge of suicide" by his inability to discover whether there "is any meaning in my life that the inevitable death awaiting me does not destroy." And he concludes a lengthy discussion with the assertion that science in all its forms is unable to disclose such a meaning (pp. 26–35).

of scientific research should be *important*, in the sense that it should be “worth knowing.” And it is obvious that this is the source of all our difficulties. For this presupposition cannot be proved by scientific methods. It can only be *interpreted* with reference to its ultimate meaning, which we must accept or reject in accordance with our own ultimate attitude toward life.

Furthermore, the relationship of scientific research to these presuppositions varies according to their structure. Sciences such as physics, chemistry, and astronomy presuppose as self-evident that it is worth knowing the ultimate laws governing cosmic processes insofar as they can be scientifically construed. Not simply because this can lead to technical advances, but, if science is supposed to be a “vocation,” “for their own sake.” This presupposition cannot itself be proved. Even less can we show that the world that these laws describe deserves to exist, that it has a “meaning” and that it is meaningful to live in it. These sciences do not ask such questions.

Or, take the example of a practical art like modern medicine, which is so highly developed in scientific terms. The general “presupposition” of medical practice is, to put it trivially, that its task is to preserve life as such and to reduce suffering as far as possible. And that is problematic. The doctor uses all his scientific skill to keep alive a dying man even if he begs to be released from this life, and even if his relatives wish for, and must wish for, the patient’s death, whether they admit it or not, because his life is worthless, because they do not begrudge him his release from suffering and because they find that the expense of maintaining his worthless existence has become unbearable—he may well be a wretched madman. But the presuppositions of medicine and the penal code prevent the doctor from desisting from his efforts. Whether this life is valuable and when, medical science does not inquire. All natural scientists provide us with answers to the question: what should we do *if we wish to make use of technology* to control life? But whether we wish, or ought, to control it through technology, and whether it ultimately makes any sense to do so, is something that we prefer to leave open or else to take as a given.

Or consider a discipline like aesthetics and art history. The fact that works of art exist is a given. Aesthetics seeks to explain the conditions in which they arise. But it does not inquire whether the realm of art may not in fact be a realm of diabolic magnificence, a kingdom of this world and hence intrinsically inimical to God and, given its profoundly aristocratic spirit, hostile to human fellowship. It does not ask whether works of art *should* exist.

Or, again, take jurisprudence. This examines the body of legal thought that has been built partly on logic and partly on practices established by convention. It determines which elements are valid; in other words, it determines *when* specific rules of law and specific modes of interpretation are to be recognized as authoritative. It does not explain *whether* such a thing as law should exist and *whether* these particular rules should be adopted. Jurisprudence can only tell us that if we wish for success, then according to the norms of our legal system the best way to achieve it is to apply this particular rule of law.

Or consider the different branches of cultural history. They teach us how to understand the political, artistic, literary, and social products of culture by examining the conditions that gave rise to them. But they provide no answer to questions about whether these cultural products *deserved* or deserve to exist. Nor do they answer the other question of whether it is worth taking the trouble to get to know them. They assume that we have an interest in using this procedure to establish our membership in the community of "civilized human beings." But whether this is the case in reality is not something they can demonstrate "scientifically," and the fact that they presuppose it does not at all imply that it is self-evident. Because that is far from being the case.

Let us now turn to the disciplines familiar to me, that is to say, sociology, history, economics, and political science, and the branches of philosophy that are concerned with interpreting them. It is often said, and I subscribe to this view, that politics has no place in the lecture room. It has no place there as far as students are concerned. I would, for example, disapprove just as much if pacifist students were to make their appearance in the lecture room of my former colleague Dietrich Schäfer²¹ in Berlin, surround the lectern, and make the sort of commotion said to have been created by antipacifist students during a lecture given by Professor Foerster,²² a man whose

²¹ Dietrich Schäfer (1845–1929) was a historian who taught at Jena, Breslau, Tübingen, and Heidelberg, as well as Berlin. He was a member of the Pan-German Society, and his nationalist, annexationist views became increasingly strident during World War I. He also advocated the unrestricted use of submarine warfare.

²² Friedrich Wilhelm Foerster (1869–1966) was an educationist and politician who held chairs in Vienna and Munich. His strongly Christian and pacifist views led him to be highly critical of Prussian and German policies during the nineteenth and twentieth centuries. His pacifist views led to a year's suspension from his post at Munich University in 1916. His reinstatement in 1917 was followed by violent clashes between left-wing and right-wing students. After the war he emigrated to Switzerland.

opinions are in many respects as remote from my own as it is possible to be. But it is likewise true that politics has no place in the lecture room as far as the lecturer is concerned. Least of all if his subject is the academic study of politics. For opinions on issues of practical politics and the academic analysis of political institutions and party policies are two very different things. If you speak about democracy at a public meeting there is no need to make a secret of your personal point of view. On the contrary, you have to take one side or the other explicitly; that is your damned duty. The words you use are not the tools of academic analysis, but a way of winning others over to your political point of view. They are not plowshares to loosen the solid soil of contemplative thought, but swords to be used against your opponents: weapons, in short.

In a lecture room it would be an outrage to make use of language in this way. When we speak of democracy in the course of a lecture, our task is to examine its various forms, to analyze them in order to see how they work, and to establish the consequences of this or that version for people's lives. We should then compare them with nondemocratic political systems. Our aim must be to enable the listener to discover the vantage point from which *he* can judge the matter in the light of *his* own ultimate ideals. But the genuine teacher will take good care not to use his position at the lectern to promote any particular point of view, whether explicitly or by suggestion. For this latter tactic is, of course, the most treacherous approach when it is done in the guise of "allowing the facts to speak for themselves."

Now, why should we not do this? I may start by saying that many highly esteemed colleagues of mine are of the opinion that it is not possible to act in accordance with this self-denying ordinance, and if it were possible it would simply be a cranky notion that were best avoided. Now we cannot provide a university teacher with scientific proof of where his duty lies. All we can demand of him is the intellectual rectitude to realize that we are dealing with two entirely *heterogeneous* problems. On the one hand, we have the establishing of factual knowledge, the determining of mathematical or logical relations or the internal structure of cultural values. On the other, we have answers to questions about the *value* of culture and its individual products, and in addition, questions about how we should *act* in the civilized community and in political organizations. If he then asks why he cannot deal with both sets of problems in the lecture room, we should answer that the prophet and the demagogue have no place at the lectern. We must say to both the prophet and the

demagogue: "go out into the street and speak to the public."²³ In other words, speak where what you say can be criticized. In the lecture room, where you sit opposite your listeners, it is for them to keep silent and for the teacher to speak.

I think it irresponsible for a lecturer to exploit a situation in which the students have to attend the class of a teacher for the sake of their future careers but where there is no one present who can respond to him critically. It is irresponsible for such a teacher to fail to provide his listeners, as is his duty, with his knowledge and academic experience, while imposing on them his personal political opinions. No doubt, an individual lecturer will not always be able to suppress his subjective sympathies. He will then have to face the sharpest criticism in the forum of his own conscience. And it proves nothing, for other, purely factual errors are possible and yet they do not amount to a refutation of the idea that his duty is to seek the truth. Furthermore, I reject the idea in the interests of pure science. I am willing to demonstrate from the writings of our historians that whenever an academic introduces his own value judgment, a complete understanding of the facts *comes to an end*. But this goes beyond the limits of the theme of my lecture this evening and would call for lengthy explanations.

I ask only this: suppose that we give a class on the forms of church and the state or on the history of religion to a group that includes a practicing Catholic on the one side, and a Freemason on the other. And if we do, how shall we attempt to persuade them to agree to the same *evaluation*? It is quite impossible. And yet the academic teacher must wish and must demand of himself that he should be of use to both of them through his knowledge and his grasp of method. Now you will have every right to say that even in a factual account of the events leading to the emergence of Christianity, a devout Catholic will never be willing to accept the view of a teacher who does not share his dogmatic preconceptions. That is undoubtedly true! But the difference consists in this. Science, which is without "preconceptions" in the sense that it rejects any religious allegiance, likewise has no knowledge of "miracles" and "revelation." If it did, it would be untrue to its own "preconceptions." The religious believer has knowledge of both. And a science without "preconceptions" expects of the believer no less, but also *no more* than the recognition that *if* the course of events can be explained without recourse to supernatural interventions that must be excluded from an empirical account of

²³ Jeremiah 2:2.

the causal factors involved, then it will have to be explained in the way that science attempts to do so. And that is something the believer can do without compromising his faith.

But we may go on to ask whether the achievements of science have no meaning for anyone who is indifferent to facts as such and is interested only in the practical point of view. Perhaps they do after all. To make an initial point: the first task of a competent teacher is to teach his students to acknowledge *inconvenient* facts. By these I mean facts that are *inconvenient* for their own personal political views. Such extremely inconvenient facts exist for every political position, including my own. I believe that when the university teacher makes his listeners accustom themselves to such facts, his achievement is more than merely intellectual. I would be immodest enough to describe it as an “ethical achievement,” though this may be too emotive a term for something that is so self-evident.

Up to now, I have spoken only of *practical* reasons for not imposing one’s personal opinions on others. But we must go further. There are much deeper reasons that persuade us to rule out the “scientific” advocacy of practical points of view—except, that is, for the discussion of what means to choose in order to achieve an end that has been definitely *agreed*. Such advocacy is senseless in principle because the different value systems of the world are caught up in an insoluble struggle with one another. The elder Mill, whose philosophy I do not otherwise admire, was right on this one point when he said that if you take pure experience as your starting point, you will end up in polytheism. This is to put it superficially and it sounds paradoxical, but it contains some truth. If we know anything, we have rediscovered that something can be sacred not just although it is not beautiful, but *because* and *insofar as* it is not beautiful. Evidence of this can be found in the book of Isaiah, chapter 53, and in Psalm 21.²⁴ And we know that something can be beautiful not just although it is not good but even in the very aspect that lacks goodness. We have known this ever since Nietzsche, and the same message could be gleaned earlier in the *Fleurs du mal*—as Baudelaire

²⁴ In Isaiah 53 we find *inter alia*: “To whom hath the arm of the Lord been revealed? For he grew up before him as a tender plant, and as a root out of a dry ground; he hath no form nor comeliness; and when we see him, there is no beauty that we should desire him. He was despised, and rejected of men; a man of sorrows, and acquainted with grief; and as one from whom men hide their face he was despised, and we esteemed him not.” Psalm 22 (not 21 as in Weber) contains a similar evocation of a man despised and abandoned by God (“My God, my God, why hast thou forsaken me?”) but whose faith is intact.

entitled his volume of poems. And it is a truism that something can be true although and because it is neither beautiful nor sacred, nor good. But these are merely the most basic instances of this conflict between the gods of the different systems and values.

I do not know how you would go about deciding “scientifically” between the *value* of French and German culture. Here, too, conflict rages between different gods and it will go on for all time. It is as it was in antiquity before the world had been divested of the magic of its gods and demons, only in a different sense. Just as the Greek would bring a sacrifice at one time to Aphrodite and at another to Apollo, and above all, to the gods of his own city, people do likewise today. Only now the gods have been deprived of the magical and mythical, but inwardly true qualities that gave them such vivid immediacy. These gods and their struggles are ruled over by fate, and certainly not by “science.” We cannot go beyond understanding *what* the divine means for this or that system or within this or that system. And this spells the end of any discussion by professors in lecture rooms, although, of course, the great problem of *life* implicit here is far from being exhausted.

But forces other than the holders of university chairs are at work here. What man will take it upon himself to provide a “scientific refutation” of the morality of the Sermon on the Mount, and in particular its dictum “Resist not him that is evil” or the metaphor of turning the other cheek?²⁵ And yet it is clear that, regarded from a worldly point of view, what is being preached here is an ethics of ignoble conduct. We must choose between the religious dignity that this ethics confers and the human code of honor [*Manneswürde*] that preaches something altogether different, namely, “Resist evil, otherwise you will bear some of the responsibility for its victory.” According to his point of view, each individual will think of one as the devil and the other as God, and he has to decide which one is the devil and which the God *for him*. And the same thing holds good for all aspects of life. The awe-inspiring rationalism of a systematic ethical conduct of life that flows from every religious prophecy dethroned this polytheism in favor of the “One thing that is needful.”²⁶ Then, when confronted by the realities of outer and inner life, it found itself forced into the compromises and accommodations that we are all familiar with from the history of Christianity.

²⁵ Matthew 5:39.

²⁶ Luke 10:42.

Nowadays, however, we have the religion of "everyday life." The numerous gods of yore, divested of their magic and hence assuming the shape of impersonal forces, arise from their graves, strive for power over our lives, and resume their eternal struggle among themselves. But what is so hard for us today, and is hardest of all for the young generation, is to meet the challenge of such an *everyday life*. All chasing after "experience" arises from this weakness. For weakness it is to be unable to look the fate of the age full in the face.

The destiny of our culture, however, is that we shall once again become more clearly conscious of this situation after a millennium in which our allegedly or supposedly exclusive reliance on the glorious pathos of the Christian ethic had blinded us to it.

But enough of these questions that lead us very far afield. For a proportion of our young people would commit a significant error here if they were to respond to all this by saying, "Very well, but the reason we come to lectures is to experience something more than just analyses and statements of fact." The error they are guilty of is that they look to the professor to be something other than he is: they are looking for a *leader* and not a *teacher*. But we are put in front of a class only as *teachers*. These are two different things and we can easily convince ourselves that this is so.

Allow me to take you back to America because it is often possible there to see things in their most basic form. An American boy learns far less than a German boy. Despite the incredible number of examinations he is subjected to, he has not yet become, as far as the *meaning* of his school life is concerned, the sort of person who is absolutely dominated by examinations that we find in Germany. For the bureaucracy that uses the examination certificate as an entry ticket to the rewards of office is still in its infancy there. The young American has no respect for anyone or anything, for any tradition or any office, unless it is the personal achievement of the person concerned. *That* is what the American calls democracy. However distorted the reality may be when compared with this conception of it, it is the conception that counts here. The teacher he sees before him is someone of whom he thinks: this man sells his knowledge and grasp of method for my father's money, just as the woman in the greengrocer's sells cabbage to my mother. And that's the long and the short of it. Admittedly, if the teacher happens to be a soccer star, then he will be regarded as a leader on the soccer field. But if he is not (or has no comparable sporting achievement to his credit), he is a teacher and nothing more, and no young American would dream of letting such a teacher sell him any "worldviews" or rules for the

conduct of his life. Now, put like this, we in Germany would reject such ideas. I have deliberately exaggerated here, but we may ask whether this attitude does not after all contain a grain of truth.

Fellow students! You come to our lectures with the expectation that we will be leaders, but you do not say to yourselves beforehand that out of one hundred professors, at least ninety-nine are not only not soccer stars in real life, but neither claim, nor have any right to claim, to be “leaders” of any kind in matters of conduct. Bear in mind that the value of a human being does not depend on whether he has leadership qualities. And in any case, the qualities that make someone an outstanding scholar and academic teacher are not those that create leaders in practical life or, more specifically, in politics. It is pure chance if a lecturer also has these qualities, and it would be very questionable if everyone who stands at the lectern were to feel called upon to claim them for himself. And even more questionable if it were left to every university teacher to act the leader in the lecture room. For the very people who think themselves called upon to be leaders are frequently the least qualified to be so. And, above all, whether they are leaders or not, the situation in the lecture room gives them absolutely no scope for *demonstrating their abilities*. Let the professor who feels himself called upon to advise young people and who enjoys their confidence show what he is made of in his personal relations with students, individually. And if he feels he has a vocation to intervene in the conflict of worldviews and party opinions, let him do so outside in the marketplace of life, in the press, at public meetings, in associations, or wherever he wishes. But it is all too easy for him to display the courage of his convictions in the presence of people who are condemned to silence even though they may well think differently from him.

But if all this is true, you will certainly want to ask what can science achieve positively for our “lives” at a personal and practical level? And this brings us back to the problem of its “vocation.” In the first place, of course, science gives us knowledge of the techniques whereby we can control life—both external objects and human actions—through calculation. But, you will say, that is just the situation of the American boy and the woman serving in the greengrocer’s. I agree entirely. But second, and this is something the greengrocer’s assistant cannot do, science provides methods of thought, the tools of the trade, and the training needed to make use of them. You will perhaps object that this is not vegetables, but equally it is no more than the means by which to procure vegetables. Good, let us leave the matter open for today.

But fortunately, this is not the last word about the achievement of science, and we are in a position to offer you a third contribution, namely, *clarity*. Always assuming that clarity is something we ourselves possess. Insofar as we do, we can make clear to you that in practice we can adopt this or that attitude toward the value problem at issue—I would ask you for simplicity's sake to take examples from social phenomena. *If* you take up this or that attitude, the lessons of science are that you must apply such and such *means* in order to convert your beliefs into a reality. These means may well turn out to be of a kind that you feel compelled to reject. You will then be forced to choose between the end and the inevitable means. Does the end “justify” these means or not? The teacher can demonstrate to you the necessity of this choice. As long as he wishes to remain a teacher, and not turn into a demagogue, he can do no more. Of course, he can say to you that if you wish to achieve this or that end, you will have to put up with certain accompanying consequences that experience tells us are bound to make their appearance. So we are back to the same situation. However, these are all problems that can arise for every technician who will frequently find himself having to choose according to the principle of the lesser evil or what is relatively speaking the best option. Only in his case one principal thing is given, namely, the *end*. And it is precisely this end that is *absent* from our situation as soon as we begin to concern ourselves with “ultimate” questions.

This brings us to the last contribution that science can make in the service of clarity, and at the same time we reach its limits. We can and should tell you that the *meaning* of this or that practical stance can be inferred consistently, and hence also honestly, from this or that ultimate fundamental ideological position. It may be deducible from one position, or from a number—but there are other quite specific philosophies from which it cannot be inferred. To put it metaphorically, if you choose this particular standpoint, you will be serving this particular god and will *give offense to every other god*. For you will necessarily arrive at such-and-such ultimate, internally meaningful *conclusions* if you remain true to yourselves. We may assert this at least in principle. The discipline of philosophy and the discussion of what are ultimately the philosophical bases of the individual disciplines all attempt to achieve this. If we understand the matter correctly (something that must be assumed here) we can compel a person, or at least help him, *to render an account of the ultimate meaning of his own actions*. This seems to me to be no small matter, and can be applied to questions concerning one's own personal life. And if a teacher succeeds in this respect I would be

tempted to say that he is acting in the service of "ethical" forces, that is to say, of the duty to foster clarity and a sense of responsibility. I believe that he will be all the more able to achieve this, the more scrupulously he avoids seeking to suggest a particular point of view to his listeners or even impose one on them.

The assumption that I am offering you here is based on a fundamental fact. This is that as long as life is left to itself and is understood in its own terms, it knows only that the conflict between these gods is never-ending. Or, in nonfigurative language, life is about the incompatibility of ultimate *possible* attitudes and hence the inability ever to resolve the conflicts between them. Hence the necessity of *deciding* between them. Whether in these circumstances it is worth anyone's while to choose science as a "vocation" and whether science itself has an objectively worthwhile "vocation" is itself a value judgment about which nothing useful can be said in the lecture room. This is because positively affirming the value of science is the *precondition* of all teaching. I personally answer this question in the affirmative through the very fact of my own work. And moreover, I do so on behalf of the point of view that hates intellectuality as if it were the very devil, a standpoint that modern youth endorses as its own, or at least thinks it does. For we may legitimately say to them [with Goethe], "Reflect, the Devil is old, so become old if you would understand him."²⁷ That is not meant literally in terms of a birth certificate, but in the sense that if you wish to get the better of this devil, there is no point in running away from him, as so often happens nowadays. Instead, you have to acquire a thorough knowledge of him so as to discover his power and his limitations.

Science today is a profession practiced in specialist *disciplines* in the service of reflection on the self and the knowledge of relationships between facts and not a gift of grace on the part of seers and prophets dispensing sacred goods and revelations. Nor is it part of the meditations of sages and philosophers about the *meaning* of the world. This is of course an ineluctable fact of our historical situation, one from which there is no escape if we remain true to ourselves. And suppose that Tolstoy rises up in you once more and asks, "who if not science will answer the question: what then shall we do and how shall we organize our lives?" Or, to put it in the language we have been using here: "Which of the warring gods shall we serve? Or shall we serve a completely different one, and who might

²⁷ J. W. von Goethe, *Faust*, part 2, trans. Philip Wayne (Harmondsworth: Penguin, 1959), p. 99, ll. 6817–8.

that be?" In that event, we must reply: only a prophet or a savior. And if there is none or if his gospel is no longer believed, you will certainly not be able to force him to appear on earth by having thousands of professors appear in the guise of privileged or state-employed petty prophets and try to claim his role for themselves in their lecture rooms. If you attempt it, the only thing you will achieve will be that knowledge of a certain crucial fact will never be brought home to the younger generation in its full significance. This fact is that the prophet for whom so many of them yearn simply does *not* exist. I believe that the inner needs of a human being with the "music" of religion in his veins will never be served if the fundamental fact that his fate is to live in an age alien to God and bereft of prophets is hidden from him and others by surrogates in the shape of all these professorial prophets. The integrity of his religious sensibility must surely rise up in rebellion against this.

Now, you will be tempted to ask what we are to make of the fact that there is such a thing as "theology" and of its claims to be a "science." Let us not mince our words. "Theology" and "dogmas" are not indeed universal, but they are by no means confined to Christianity. They exist also in a highly developed form (looking back chronologically) in Islam, Manicheism, Gnosticism, Orphism, Zoroastrianism, Buddhism, the Hindu sects, Taoism, and the Upanishads, and, of course, in Judaism. To be sure, they vary greatly in the extent to which they have been developed systematically. And in contrast to what Judaism, for example, has to show, it is no accident that Western Christianity has not only extended theology more systematically, or has striven to, but that its development has had incomparably greater historical significance. It was the Greek spirit that produced this effect, and all the theology of the West can be traced back to Greece, just as all theology of the East (obviously) goes back to Indian thought.

All theology is the intellectual *rationalization* of sacred religious beliefs. No science is absolutely free of assumptions and none can satisfactorily explain its value to a person who rejects them. But every theology adds a few assumptions that it requires for its work and thus for the justification of its existence. Their meaning and scope vary. We may say that *every* theology, including that of Hinduism, is based on the assumption that the world must have a *meaning*. They go on to ask how we are to interpret this meaning so that it is intellectually conceivable. The position is similar to Kant's epistemology, which proceeded from the assumption that "scientific truth exists and it is *valid*" and then went on to inquire what intellectual assumptions are required for this to be (meaning-

fully) possible.²⁸ Or as modern aesthetic philosophers (explicitly, as with Georg von Lukács, or implicitly) proceed from the assumption that “works of art *exist*” and then go on to ask how that is (meaningfully) possible.²⁹ Admittedly, the theologians do not content themselves as a rule with that assumption (which really belongs to the philosophy of religion). They normally proceed from a further postulate, namely, that specific “revelations” are facts vital for salvation, that is to say, facts without which the meaningful conduct of life is not possible. Therefore, these revelations simply must be believed in. Furthermore, they require you to accept that certain conditions and actions possess the quality of holiness, that is, they supply the basis or at least the elements of a life that is religiously meaningful. They then go on to ask yet again: How can these simply indispensable assumptions be meaningfully interpreted within a view of the universe as a whole? Note that for theology these assumptions lie outside the realm of “science.” They are not “knowledge” in the sense ordinarily understood, but a form of “having.” Whoever does not “have” them—faith or the other requisites of holiness—will not be able to obtain them with the help of theology, let alone any other branch of science. On the contrary, in every “positive” theology the believer reaches the point where St. Augustine’s assertion holds good: “Credo non quod, sed *quia* absurdum est.”³⁰ The talent for this virtuoso achievement of “sacrificing the intellect” is a crucial characteristic of men with positive religion. And the fact that this is so shows that despite (or rather as a result of) the theology (that after all reveals this fact) the tension between the value spheres of “science” and religious salvation cannot be overcome.

Properly speaking, it is only the disciple who makes a sacrifice of the intellect to the prophet, and the believer to the church. But never has a new prophecy come into being because (and I deliberately

²⁸ This quotation has not been identified, but see, for example, “How Is Natural Science Possible?” in Paul Guyer and Paul W. Wood, trans., *The Critique of Pure Reason* (Cambridge: Cambridge University Press, 1997), p. 147.

²⁹ Georg von Lukács (1885–1971) became a leading Marxist philosopher at the end of World War I. Before that he was a noted literary critic and philosopher of art, associated with a circle around Max Weber. He published two influential books on literature, *Die Seele und die Formen* (1909) (appeared in English as *Soul and Form* [Cambridge, MA: MIT Press, 1974]) and *Theorie des Romans* (1916) (appeared in English as *The Theory of the Novel* [Cambridge, MA: MIT Press, 1971]).

³⁰ “I believe not what [is absurd], but *because* it is absurd” (generally attributed now to Tertullian [c. 155/60—after 220], rather than St. Augustine).

repeat a metaphor that some have found offensive) many modern intellectuals experience the need to furnish their souls, as it were, with antique objects that have been guaranteed genuine. They then recollect that religion once belonged among these antiques. It is something they do not happen to possess, but by way of a substitute they are ready to play at decorating a private chapel with pictures of the saints that they have picked up in all sorts of places, or to create a surrogate by collecting experiences of all kinds that they endow with the dignity of a mystical sanctity—and which they then hawk around the book markets. This is simply fraud or self-deception. A different phenomenon, on the other hand, is no fraud but very serious and genuine, although sometimes open to self-misinterpretation. This occurs when some of the youth organizations that have quietly grown up during recent years interpret their own human communities in religious, cosmic, or mystical terms. It may well be true that every genuinely fraternal act can be combined with the belief that it contributes something of enduring value to a suprapersonal realm. However, I think it doubtful that such religious interpretations do anything to enhance the worth of purely human relationships. But no more of that here.

Our age is characterized by rationalization and intellectualization, and above all, by the disenchantment of the world. Its resulting fate is that precisely the ultimate and most sublime values have withdrawn from public life. They have retreated either into the abstract realm of mystical life or into the fraternal feelings of personal relations between individuals. It is no accident that our greatest art is intimate rather than monumental. Nor is it a matter of chance that today it is only in the smallest groups, between individual human beings, *pianissimo*, that you find the pulsing beat that in bygone days heralded the prophetic spirit that swept through great communities like a firestorm and welded them together. If we attempt artificially to “invent” a sense of monumental art, this leads only to wretched monstrosities of the kind we have seen in the many artistic works of the last twenty years.

If we attempt to construct new religious movements without a new, authentic prophecy, this only gives rise to something equally monstrous in terms of inner experience, which can only have an even more dire effect. And academic prophecies can only ever produce fanatical sects, but never a genuine community. To anyone who is unable to endure the fate of the age like a man we must say that he should return to the welcoming and merciful embrace of the old churches—simply, silently, and without any of the usual public bluster of the renegade. They will surely not make it hard for him.

In the process, he will inevitably be forced to make a “sacrifice of the intellect,” one way or the other. We shall not bear him a grudge if he can really do it. For such a sacrifice of the intellect in favor of an unconditional religious commitment is one thing.

But morally, it is a very different thing if one shirks his straightforward duty to preserve his intellectual integrity. This is what happens when he lacks the courage to make up his mind about his ultimate standpoint but instead resorts to feeble equivocation in order to make his duty less onerous. And that embracing of religion also ranks higher to my mind than the professorial prophecy that forgets that the only morality that exists in a lecture room is that of plain intellectual integrity. This integrity enjoins us to be mindful that for all those multitudes today who are waiting for new prophets and saviors, the situation is the same as we can hear from that beautiful song of the Edomite watchman during the exile that was included in the book of Isaiah. “One calleth to me out of Seir, Watchman, what of the night? what of the night? The watchman said, Even if the morning cometh, it is still night: if ye inquire already, ye will come again and inquire once more.”³¹ The people to whom this was said have inquired and waited for much longer than two thousand years, and we are familiar with its deeply distressing fate. From it we should draw the moral that longing and waiting is not enough and that we must act differently. We must go about our work and meet “the challenges of the day”—both in our human relations and our vocation.³² But that moral is simple and straightforward if each person finds and obeys the daemon³³ that holds the threads of *his* life.

³¹ Isaiah 21:11–12. The translation given in the text is a direct translation from Martin Luther’s German, of which Weber’s text gives a slight paraphrase. This diverges from the traditional English renderings, which arguably may puzzle the lay reader and fail to make Weber’s reason for quoting it clear. Thus, the Revised Version has: “The watchman said, The morning cometh, and also the night: if ye will inquire, inquire ye: turn ye, come.”

³² The quotation is from Goethe, *Wilhelm Meisters Wanderjahre*, which contains the exchange, “What is your duty? The challenge of the day.” *Weimarer Ausgabe* (Weimar, 1907), vol. 42, section 2, p. 187.

³³ Weber uses the word *Dämon*, which means both “daemon” and “demon.” A “daemon” is an inner or attendant spirit. The term goes back at least to Socrates in the *Symposium*, but it was given currency among the educated German public by a poem by Goethe with the title *Dämon*, which was obviously known to Weber and contains *inter alia* the lines: “Even as the sun and planets stood, to salute one another on the day you entered the world—even so you began straightaway to grow and have continued to do so, according to the law that prevailed over your beginning. It is thus that you must be, you cannot escape yourself. . . .”