



Science as a Vocation Author(s): Max Weber

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TEXTS AND MOTIFS

Max Weber: "Science as a Vocation"

Introduction: Philip Rieff

With the presentation of the major part of Weber's great essay, the Editors of *Dædalus* establish a Department featuring important documents which have served to define a crucial issue—a Department designed to convert those among us who have lapsed back into the comforting uncertainties of our own disciplines to the larger uncertainties. Whether we shall uncover many essays equal to Weber's is open to doubt; we shall try, for only from the profound and illuminating despair of writings such as this can any affirmative doctrine of man, as seen from the shattered perspectives of the modern arts and sciences, again arise.

In sum, Weber argues that the sciences cannot ask questions of value. Neither philosophy nor theology is now competent to ask, let alone to answer. The arts, if they could make an answer, would only point narcissistically to themselves. No new answer sounds, and the old ones bore us, for they are no longer directed to apparently relevant questions. Perhaps, Weber hints, we ought to abandon such questions and treat every aspect of life as a work of art, something worth while so far as we respond to it. But other minds, not less keen than Weber's, are still at work formulating the questions. And it does not help, as Weber agrees, to dismiss the questions as unscientific; that would be to ignore the complicity of science itself in creating our main embarrassment, to raise first questions long after they had been laid to rest with their ancestors, the Gods.

Men became religious when they had to approach and rationalize the chaos of powers by which they were moved and their destinies sealed. But from Hobbes to Weber there has been an insistent, ironic voice saying that religious man is really, at bottom, political man. All theologies are metaphors of politics. Thus, from the primitive notion that God is power we have advanced to the notion that power is God. Now, as once in some mythic time mankind tested the limits of God, the limits of power are being tested. Whether we shall end with a real Fall is not yet certain, although some testers imagine such things in their most expert dreams. Weber shared in the scientific imagination of disaster. In this essay he sketches the model of all our present disasters. Weber was an honest and passionate scientist; when he had finished constructing his model and found himself enclosed in it, he stayed. To his way of thinking there is no way out.

Science as a Vocation*

. . . This much I deem necessary to say about the external conditions of the academic man's vocation. But I believe that actually you wish to hear of something else, namely, of the *inward* calling for science. In our time, the internal situation, in contrast to the organization of science as a vocation, is first of all conditioned by the facts that science has entered a phase of specialization previously unknown and that this will forever remain the case. Not only externally, but inwardly, matters stand at a point where the individual can acquire the sure consciousness of achieving something truly perfect in the field of science only in case he is a strict specialist.

All work that overlaps neighboring fields, such as we occasionally undertake and which the sociologists must necessarily undertake again and again, is burdened with the resigned realization that at best one provides the specialist with useful questions upon which he would not so easily hit from his own specialized point of view. One's own work must inevitably remain highly imperfect. Only by strict specialization can the scientific worker become fully conscious, for once and perhaps never again in his lifetime, that he has achieved something that will endure. A really definitive and good accomplishment is today always a specialized accomplishment. And whoever lacks the capacity to put on blinders, so to speak, and to come up to the idea that the fate of his soul depends upon whether or not he makes the correct conjecture at this passage of this manuscript may as well stay away from science. He will never have what one may call the 'personal experience' of science. Without this strange intoxication, ridiculed by every outsider; without this passion, this 'thousands of years must pass before you enter into life and thousands more wait in silence '- according to whether or not you succeed in making this conjecture; without this, you have no calling for science and you should do something else. For nothing is worthy of man as man unless he can pursue it with passionate devotion.

* Reprinted with permission from the book From Max Weber: Essays in Sociology, translated, edited and with an introduction by H. H. Gerth and C. Wright Mills (New York: Oxford University Press, 1946), pp. 134-156. Translated from 'Wissenschaft als Beruf,' Gesammelte Aufsaetze zur Wissenschaftslehre (Tübingen, 1922), pp. 524-55. Originally a speech at Munich University, 1918, published in 1919 by Duncker & Humboldt, Munich.

Yet it is a fact that no amount of such enthusiasm, however sincere and profound it may be, can compel a problem to yield scientific results. Certainly enthusiasm is a prerequisite of the 'inspiration' which is decisive. Nowadays in circles of youth there is a widespread notion that science has become a problem in calculation, fabricated in laboratories or statistical filing systems just as 'in a factory,' a calculation involving only the cool intellect and not one's 'heart and soul.' First of all one must say that such comments lack all clarity about what goes on in a factory or in a laboratory. In both some idea has to occur to someone's mind, and it has to be a correct idea, if one is to accomplish anything worthwhile. And such intuition cannot be forced. It has nothing to do with any cold calculation. Certainly calculation is also an indispensable prerequisite. No sociologist, for instance, should think himself too good, even in his old age, to make tens of thousands of quite trivial computations in his head and perhaps for months at a time. One cannot with impunity try to transfer this task entirely to mechanical assistants if one wishes to figure something, even though the final result is often small indeed. But if no 'idea' occurs to his mind about the direction of his computations and, during his computations, about the bearing of the emergent single results, then even this small result will not be yielded.

Normally such an 'idea' is prepared only on the soil of very hard work, but certainly this is not always the case. Scientifically, a dilettante's idea may have the very same or even a greater bearing for science than that of a specialist. Many of our very best hypotheses and insights are due precisely to dilettantes. The dilettante differs from the expert, as Helmholtz has said of Robert Mayer, only in that he lacks a firm and reliable work procedure. Consequently he is usually not in the position to control, to estimate, or to exploit the idea in its bearings. The idea is not a substitute for work; and work, in turn, cannot substitute for or compel an idea, just as little as enthusiasm can. Both, enthusiasm and work, and above all both of them *jointly*, can entice the idea.

Ideas occur to us when they please, not when it pleases us. The best ideas do indeed occur to one's mind in the way in which Ihering describes it: when smoking a cigar on the sofa; or as Helmholtz states of himself with scientific exactitude: when taking a walk on a slowly ascending street; or in a similar way. In any case, ideas come when we do not expect them, and not when we are brooding

and searching at our desks. Yet ideas would certainly not come to mind had we not brooded at our desks and searched for answers with passionate devotion.

However this may be, the scientific worker has to take into his bargain the risk that enters into all scientific work: Does an 'idea' occur or does it not? He may be an excellent worker and yet never have had any valuable idea of his own. It is a grave error to believe that this is so only in science, and that things for instance in a business office are different from a laboratory. A merchant or a big industrialist without 'business imagination,' that is, without ideas or ideal intuitions, will for all his life remain a man who would better have remained a clerk or a technical official. He will never be truly creative in organization. Inspiration in the field of science by no means plays any greater role, as academic conceit fancies, than it does in the field of mastering problems of practical life by a modern entrepreneur. On the other hand, and this also is often misconstrued, inspiration plays no less a role in science than it does in the realm of art. It is a childish notion to think that a mathematician attains any scientifically valuable results by sitting at his desk with a ruler, calculating machines or other mechanical means. The mathematical imagination of a Weierstrass is naturally quite differently oriented in meaning and result than is the imagination of an artist, and differs basically in quality. But the psychological processes do not differ. Both are frenzy (in the sense of Plato's 'mania') and 'inspiration.'

Now, whether we have scientific inspiration depends upon destinies that are hidden from us, and besides upon 'gifts.' Last but not least, because of this indubitable truth, a very understandable attitude has become popular, especially among youth, and has put them in the service of idols whose cult today occupies a broad place on all street corners and in all periodicals. These idols are 'personality' and 'personal experience.' Both are intimately connected, the notion prevails that the latter constitutes the former and belongs to it. People belabor themselves in trying to 'experience' life – for that befits a personality, conscious of its rank and station. And if we do not succeed in 'experiencing' life, we must at least pretend to have this gift of grace. Formerly we called this 'experience,' in plain German, 'sensation'; and I believe that we then had a more adequate idea of what personality is and what it signifies.

Ladies and gentlemen. In the field of science only he who is devoted solely to the work at hand has 'personality.' And this holds not only for the field of science; we know of no great artist who has ever done anything but serve his work and only his work. As far as his art is concerned, even with a personality of Goethe's rank, it has been detrimental to take the liberty of trying to make his 'life' into a work of art. And even if one doubts this, one has to be a Goethe in order to dare permit oneself such liberty. Everybody will admit at least this much: that even with a man like Goethe, who appears once in a thousand years, this liberty did not go unpaid for. In politics matters are not different, but we shall not discuss that today. In the field of science, however, the man who makes himself the impresario of the subject to which he should be devoted, and steps upon the stage and seeks to legitimate himself through 'experience,' asking: How can I prove that I am something other than a mere 'specialist' and how can I manage to say something in form or in content that nobody else has ever said? - such a man is no 'personality.' Today such conduct is a crowd phenomenon, and it always makes a petty impression and debases the one who is thus concerned. Instead of this, an inner devotion to the task, and that alone, should lift the scientist to the height and dignity of the subject he pretends to serve. And in this it is not different with the artist.

In contrast with these preconditions which scientific work shares with art, science has a fate that profoundly distinguishes it from artistic work. Scientific work is chained to the course of progress; whereas in the realm of art there is no progress in the same sense. It is not true that the work of art of a period that has worked out new technical means, or, for instance, the laws of perspective, stands therefore artistically higher than a work of art devoid of all knowledge of those means and laws—if its form does justice to the material, that is, if its object has been chosen and formed so that it could be artistically mastered without applying those conditions and means. A work of art which is genuine 'fulfilment' is never surpassed; it will never be antiquated. Individuals may differ in appreciating the personal significance of works of art, but no one will ever be able to say of such a work that it is outstripped by another work which is also 'fulfilment.'

In science, each of us knows that what he has accomplished will be antiquated in ten, twenty, fifty years. That is the fate to which

science is subjected; it is the very meaning of scientific work, to which it is devoted in a quite specific sense, as compared with other spheres of culture for which in general the same holds. Every scientific 'fulfilment' raises new 'questions'; it asks to be 'surpassed' and outdated. Whoever wishes to serve science has to resign himself to this fact. Scientific works certainly can last as 'gratifications' because of their artistic quality, or they may remain important as a means of training. Yet they will be surpassed scientifically - let that be repeated - for it is our common fate and, more, our common goal. We cannot work without hoping that others will advance further than we have. In principle, this progress goes on ad infinitum. And with this we come to inquire into the meaning of science. For, after all, it is not self-evident that something subordinate to such a law is sensible and meaningful in itself. Why does one engage in doing something that in reality never comes, and never can come, to an end?

One does it, first, for purely practical, in the broader sense of the word, for technical, purposes: in order to be able to orient our practical activities to the expectations that scientific experience places at our disposal. Good. Yet this has meaning only to practitioners. What is the attitude of the academic man towards his vocation—that is, if he is at all in quest of such a personal attitude? He maintains that he engages in 'science for science's sake' and not merely because others, by exploiting science, bring about commercial or technical success and can better feed, dress, illuminate, and govern. But what does he who allows himself to be integrated into this specialized organization, running on ad infinitum, hope to accomplish that is significant in these productions that are always destined to be outdated? This question requires a few general considerations.

Scientific progress is a fraction, the most important fraction, of the process of intellectualization which we have been undergoing for thousands of years and which nowadays is usually judged in such an extremely negative way. Let us first clarify what this intellectualist rationalization, created by science and by scientifically oriented technology, means practically.

Does it mean that we, today, for instance, everyone sitting in this hall, have a greater knowledge of the conditions of life under which we exist than has an American Indian or a Hottentot? Hardly. Unless he is a physicist, one who rides on the streetcar has no idea how the car happened to get into motion. And he does not need

to know. He is satisfied that he may 'count' on the behavior of the streetcar, and he orients his conduct according to this expectation; but he knows nothing about what it takes to produce such a car so that it can move. The savage knows incomparably more about his tools. When we spend money today I bet that even if there are colleagues of political economy here in the hall, almost every one of them will hold a different answer in readiness to the question: How does it happen that one can buy something for money—sometimes more and sometimes less? The savage knows what he does in order to get his daily food and which institutions serve him in this pursuit. The increasing intellectualization and rationalization do *not*, therefore, indicate an increased and general knowledge of the conditions under which one lives.

It means something else, namely, the knowledge or belief that if one but wished one *could* learn it at any time. Hence, it means that principally there are no mysterious incalculable forces that come into play, but rather that one can, in principle, master all things by calculation. This means that the world is disenchanted. One need no longer have recourse to magical means in order to master or implore the spirits, as did the savage, for whom such mysterious powers existed. Technical means and calculations perform the service. This above all is what intellectualization means.

Now, this process of disenchantment, which has continued to exist in Occidental culture for millennia, and, in general, this 'progress,' to which science belongs as a link and motive force, do they have any meanings that go beyond the purely practical and technical? You will find this question raised in the most principled form in the works of Leo Tolstoi. He came to raise the question in a peculiar way. All his broodings increasingly revolved around the problem of whether or not death is a meaningful phenomenon. And his answer was: for civilized man death has no meaning. It has none because the individual life of civilized man, placed into an infinite 'progress,' according to its own immanent meaning should never come to an end; for there is always a further step ahead of one who stands in the march of progress. And no man who comes to die stands upon the peak which lies in infinity. Abraham, or some peasant of the past, died 'old and satiated with life' because he stood in the organic cycle of life; because his life, in terms of its meaning and on the eve of his days, had given to him what life had to offer; because for him there remained no

puzzles he might wish to solve; and therefore he could have had 'enough' of life. Whereas civilized man, placed in the midst of the continuous enrichment of culture by ideas, knowledge, and problems, may become 'tired of life' but not 'satiated with life.' He catches only the most minute part of what the life of the spirit brings forth ever anew, and what he seizes is always something provisional and not definitive, and therefore death for him is a meaningless occurrence. And because death is meaningless, civilized life as such is meaningless; by its very 'progressiveness' it gives death the imprint of meaninglessness. Throughout his late novels one meets with this thought as the keynote of the Tolstoyan art.

What stand should one take? Has 'progress' as such a recognizable meaning that goes beyond the technical, so that to serve it is a meaningful vocation? The question must be raised. But this is no longer merely the question of man's calling for science, hence, the problem of what science as a vocation means to its devoted disciples. To raise this question is to ask for the vocation of science within the total life of humanity. What is the value of science?

Here the contrast between the past and the present is tremendous. You will recall the wonderful image at the beginning of the seventh book of Plato's *Republic*: those enchained cavemen whose faces are turned toward the stone wall before them. Behind them lies the source of the light which they cannot see. They are concerned only with the shadowy images that this light throws upon the wall, and they seek to fathom their interrelations. Finally one of them succeeds in shattering his fetters, turns around, and sees the sun. Blinded, he gropes about and stammers of what he saw. The others say he is raving. But gradually he learns to behold the light, and then his task is to descend to the cavemen and to lead them to the light. He is the philosopher; the sun, however, is the truth of science, which alone seizes not upon illusions and shadows but upon the true being.

Well, who today views science in such a manner? Today youth feels rather the reverse: the intellectual constructions of science constitute an unreal realm of artificial abstractions, which with their bony hands seek to grasp the blood-and-the-sap of true life without ever catching up with it. But here in life, in what for Plato was the play of shadows on the walls of the cave, genuine reality is pulsating; and the rest are derivatives of life, lifeless ghosts, and nothing else. How did this change come about?

Plato's passionate enthusiasm in The Republic must, in the last analysis, be explained by the fact that for the first time the concept, one of the great tools of all scientific knowledge, had been consciously discovered. Socrates had discovered it in its bearing. He was not the only man in the world to discover it. In India one finds the beginnings of a logic that is quite similar to that of Aristotle's. But nowhere else do we find this realization of the significance of the concept. In Greece, for the first time, appeared a handy means by which one could put the logical screws upon somebody so that he could not come out without admitting either that he knew nothing or that this and nothing else was truth, the eternal truth that never would vanish as the doings of the blind men vanish. That was the tremendous experience which dawned upon the disciples of Socrates. And from this it seemed to follow that if one only found the right concept of the beautiful, the good, or, for instance, of bravery, of the soul – or whatever – that then one could also grasp its true being. And this, in turn, seemed to open the way for knowing and for teaching how to act rightly in life and, above all, how to act as a citizen of the state; for this question was everything to the Hellenic man, whose thinking was political throughout. And for these reasons one engaged in science.

The second great tool of scientific work, the rational experiment, made its appearance at the side of this discovery of the Hellenic spirit during the Renaissance period. The experiment is a means of reliably controlling experience. Without it, present-day empirical science would be impossible. There were experiments earlier; for instance, in India physiological experiments were made in the service of ascetic yoga technique; in Hellenic antiquity, mathematical experiments were made for purposes of war technology; and in the Middle Ages, for purposes of mining. But to raise the experiment to a principle of research was the achievement of the Renaissance. They were the great innovators in art, who were the pioneers of experiment. Leonardo and his like and, above all, the sixteenthcentury experimenters in music with their experimental pianos were characteristic. From these circles the experiment entered science, especially through Galileo, and it entered theory through Bacon; and then it was taken over by the various exact disciplines of the continental universities, first of all those of Italy and then those of the Netherlands.

What did science mean to these men who stood at the threshold

of modern times? To artistic experimenters of the type of Leonardo and the musical innovators, science meant the path to true art, and that meant for them the path to true nature. Art was to be raised to the rank of a science, and this meant at the same time and above all to raise the artist to the rank of the doctor, socially and with reference to the meaning of his life. This is the ambition on which, for instance, Leonardo's sketch book was based. And today? 'Science as the way to nature' would sound like blasphemy to youth. Today, youth proclaims the opposite: redemption from the intellectualism of science in order to return to one's own nature and therewith to nature in general. Science as a way to art? Here no criticism is even needed.

But during the period of the rise of the exact sciences one expected a great deal more. If you recall Swammerdam's statement, 'Here I bring you the proof of God's providence in the anatomy of a louse,' you will see what the scientific worker, influenced (indirectly) by Protestantism and Puritanism, conceived to be his task: to show the path to God. People no longer found this path among the philosophers, with their concepts and deductions. All pietist theology of the time, above all Spener, knew that God was not to be found along the road by which the Middle Ages had sought him. God is hidden, His ways are not our ways, His thoughts are not our thoughts. In the exact sciences, however, where one could physically grasp His works, one hoped to come upon the traces of what He planned for the world. And today? Who aside from certain big children who are indeed found in the natural sciences – still believes that the findings of astronomy, biology, physics, or chemistry could teach us anything about the meaning of the world? If there is any such 'meaning,' along what road could one come upon its tracks? If these natural sciences lead to anything in this way, they are apt to make the belief that there is such a thing as the 'meaning' of the universe die out at its very roots.

And finally, science as a way 'to God'? Science, this specifically irreligious power? That science today is irreligious no one will doubt in his innermost being, even if he will not admit it to himself. Redemption from the rationalism and intellectualism of science is the fundamental presupposition of living in union with the divine This, or something similar in meaning, is one of the fundamental watchwords one hears among German youth, whose feelings are attuned to religion or who crave religious experiences. They crave

not only religious experience but experience as such. The only thing that is strange is the method that is now followed: the spheres of the irrational, the only spheres that intellectualism has not yet touched, are now raised into consciousness and put under its lens. For in practice this is where the modern intellectualist form of romantic irrationalism leads. This method of emancipation from intellectualism may well bring about the very opposite of what those who take to it conceive as its goal.

After Nietzsche's devastating criticism of those 'last men' who 'invented happiness,' I may leave aside altogether the naive optimism in which science – that is, the technique of mastering life which rests upon science – has been celebrated as the way to happiness. Who believes in this? – aside from a few big children in university chairs or editorial offices. Let us resume our argument.

Under these internal presuppositions, what is the meaning of science as a vocation, now after all these former illusions, the 'way to true being,' the 'way to true art,' the 'way to true nature,' the 'way to true God,' the 'way to true happiness,' have been dispelled? Tolstoi has given the simplest answer, with the words: 'Science is meaningless because it gives no answer to our question, the only question important for us: "What shall we do and how shall we live?"' That science does not give an answer to this is indisputable. The only question that remains is the sense in which science gives 'no' answer, and whether or not science might yet be of some use to the one who puts the question correctly.

Today one usually speaks of science as 'free from presuppositions.' Is there such a thing? It depends upon what one understands thereby. All scientific work presupposes that the rules of logic and method are valid; these are the general foundations of our orientation in the world; and, at least for our special question, these presuppositions are the least problematic aspect of science. Science further presupposes that what is yielded by scientific work is important in the sense that it is 'worth being known.' In this, obviously, are contained all our problems. For this presupposition cannot be proved by scientific means. It can only be *interpreted* with reference to its ultimate meaning, which we must reject or accept according to our ultimate position towards life.

Furthermore, the nature of the relationship of scientific work and its presuppositions varies widely according to their structure. The natural sciences, for instance, physics, chemistry, and astron-

omy, presuppose as self-evident that it is worth while to know the ultimate laws of cosmic events as far as science can construe them. This is the case not only because with such knowledge one can attain technical results but for its own sake, if the quest for such knowledge is to be a 'vocation.' Yet this presupposition can by no means be proved. And still less can it be proved that the existence of the world which these sciences describe is worth while, that it has any 'meaning,' or that it makes sense to live in such a world. Science does not ask for the answers to such questions.

Consider modern medicine, a practical technology which is highly developed scientifically. The general 'presupposition' of the medical enterprise is stated trivially in the assertion that medical science has the task of maintaining life as such and of diminishing suffering as such to the greatest possible degree. Yet this is problematical. By his means the medical man preserves the life of the mortally ill man, even if the patient implores us to relieve him of life, even if his relatives, to whom his life is worthless and to whom the costs of maintaining his worthless life grow unbearable, grant his redemption from suffering. Perhaps a poor lunatic is involved, whose relatives, whether they admit it or not, wish and must wish for his death. Yet the presuppositions of medicine, and the penal code, prevent the physician from relinquishing his therapeutic efforts. Whether life is worth while living and when – this question is not asked by medicine. Natural science gives us an answer to the question of what we must do if we wish to master life technically. It leaves quite aside, or assumes for its purposes, whether we should and do wish to master life technically and whether it ultimately makes sense to do so.

Consider a discipline such as aesthetics. The fact that there are works of art is given for aesthetics. It seeks to find out under what conditions this fact exists, but it does not raise the question whether or not the realm of art is perhaps a realm of diabolical grandeur, a realm of this world, and therefore, in its core, hostile to God and, in its innermost and aristocratic spirit, hostile to the brotherhood of man. Hence, aesthetics does not ask whether there *should* be works of art.

Consider jurisprudence. It establishes what is valid according to the rules of juristic thought, which is partly bound by logically compelling and partly by conventionally given schemata. Juridical thought holds when certain legal rules and certain methods of in-

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terpretations are recognized as binding. Whether there should be law and whether one should establish just these rules — such questions jurisprudence does not answer. It can only state: If one wishes this result, according to the norms of our legal thought, this legal rule is the appropriate means of attaining it.

Consider the historical and cultural sciences. They teach us how to understand and interpret political, artistic, literary, and social phenomena in terms of their origins. But they give us no answer to the question, whether the existence of these cultural phenomena have been and are worth while. And they do not answer the further question, whether it is worth the effort required to know them. They presuppose that there is an interest in partaking, through this procedure, of the community of 'civilized men.' But they cannot prove 'scientifically' that this is the case; and that they presuppose this interest by no means proves that it goes without saying. In fact it is not at all self-evident.

Finally, let us consider the disciplines close to me: sociology, history, economics, political science, and those types of cultural philosophy that make it their task to interpret these sciences. It is said, and I agree, that politics is out of place in the lecture-room. It does not belong there on the part of the students. If, for instance, in the lecture-room of my former colleague Dietrich Schäfer in Berlin, pacifist students were to surround his desk and make an uproar, I should deplore it just as much as I should deplore the uproar which anti-pacifist students are said to have made against Professor Förster, whose views in many ways are as remote as could be from mine. Neither does politics, however, belong in the lecture-room on the part of the docents, and when the docent is scientifically concerned with politics, it belongs there least of all.

To take a practical political stand is one thing, and to analyze political structures and party positions is another. When speaking in a political meeting about democracy, one does not hide one's personal standpoint; indeed, to come out clearly and take a stand is one's damned duty. The words one uses in such a meeting are not means of scientific analysis but means of canvassing votes and winning over others. They are not plowshares to loosen the soil of contemplative thought; they are swords against the enemies: such words are weapons. It would be an outrage, however, to use words in this fashion in a lecture or in the lecture-room. If, for instance, 'democracy' is under discussion, one considers its various

forms, analyzes them in the way they function, determines what results for the conditions of life the one form has as compared with the other. Then one confronts the forms of democracy with non-democratic forms of political order and endeavors to come to a position where the student may find the point from which, in terms of his ultimate ideals, he can take a stand. But the true teacher will beware of imposing from the platform any political position upon the student, whether it is expressed or suggested. 'To let the facts speak for themselves' is the most unfair way of putting over a political position to the student.

Why should we abstain from doing this? I state in advance that some highly esteemed colleagues are of the opinion that it is not possible to carry through this self-restraint and that, even if it were possible, it would be a whim to avoid declaring oneself. Now one cannot demonstrate scientifically what the duty of an academic teacher is. One can only demand of the teacher that he have the intellectual integrity to see that it is one thing to state facts, to determine mathematical or logical relations or the internal structure of cultural values, while it is another thing to answer questions of the value of culture and its individual contents and the question of how one should act in the cultural community and in political associations. These are quite heterogeneous problems. If he asks further why he should not deal with both types of problems in the lecture-room, the answer is: because the prophet and the demagogue do not belong on the academic platform.

To the prophet and the demagogue, it is said: 'Go your ways out into the streets and speak openly to the world,' that is, speak where criticism is possible. In the lecture-room we stand opposite our audience, and it has to remain silent. I deem it irresponsible to exploit the circumstance that for the sake of their career the students have to attend a teacher's course while there is nobody present to oppose him with criticism. The task of the teacher is to serve the students with his knowledge and scientific experience and not to imprint upon them his personal political views. It is certainly possible that the individual teacher will not entirely succeed in eliminating his personal sympathies. He is then exposed to the sharpest criticism in the forum of his own conscience. And this deficiency does not prove anything; other errors are also possible, for instance, erroneous statements of fact, and yet they prove nothing against the duty of searching for the truth. I also

reject this in the very interest of science. I am ready to prove from the works of our historians that whenever the man of science introduces his personal value judgment, a full understanding of the facts *ceases*. But this goes beyond tonight's topic and would require lengthy elucidation.

I ask only: How should a devout Catholic, on the one hand, and a Freemason, on the other, in a course on the forms of church and state or on religious history ever be brought to evaluate these subjects alike? This is out of the question. And yet the academic teacher must desire and must demand of himself to serve the one as well as the other by his knowledge and methods. Now you will rightly say that the devout Catholic will never accept the view of the factors operative in bringing about Christianity which a teacher who is free of his dogmatic presuppositions presents to him. Certainly! The difference, however, lies in the following: Science 'free from presuppositions,' in the sense of a rejection of religious bonds, does not know of the 'miracle' and the 'revelation.' If it did, science would be unfaithful to its own 'presuppositions.' The believer knows both, miracle and revelation. And science 'free from presuppositions' expects from him no less – and no more — than acknowledgment that $i\bar{f}$ the process can be explained without those supernatural interventions, which an empirical explanation has to eliminate as causal factors, the process has to be explained the way science attempts to do. And the believer can do this without being disloyal to his faith.

But has the contribution of science no meaning at all for a man who does not care to know facts as such and to whom only the practical standpoint matters? Perhaps science nevertheless contributes something.

The primary task of a useful teacher is to teach his students to recognize 'inconvenient' facts — I mean facts that are inconvenient for their party opinions. And for every party opinion there are facts that are extremely inconvenient, for my own opinion no less than for others. I believe the teacher accomplishes more than a mere intellectual task if he compels his audience to accustom itself to the existence of such facts. I would be so immodest as even to apply the expression 'moral achievement,' though perhaps this may sound too grandiose for something that should go without saying.

Thus far I have spoken only of practical reasons for avoiding the imposition of a personal point of view. But these are not the

only reasons. The impossibility of 'scientifically' pleading for practical and interested stands—except in discussing the means for a firmly given and presupposed end—rests upon reasons that lie far deeper.

'Scientific' pleading is meaningless in principle because the various value spheres of the world stand in irreconcilable conflict with each other. The elder Mill, whose philosophy I will not praise otherwise, was on this point right when he said: If one proceeds from pure experience, one arrives at polytheism. This is shallow in formulation and sounds paradoxical, and yet there is truth in it. If anything, we realize again today that something can be sacred not only in spite of its not being beautiful, but rather because and in so far as it is not beautiful. You will find this documented in the fifty-third chapter of the book of Isaiah and in the twenty-first Psalm. And, since Nietzsche, we realize that something can be beautiful, not only in spite of the aspect in which it is not good, but rather in that very aspect. You will find this expressed earlier in the Fleurs du mal, as Baudelaire named his volume of poems. It is commonplace to observe that something may be true although it is not beautiful and not holy and not good. Indeed it may be true in precisely those aspects. But all these are only the most elementary cases of the struggle that the gods of the various orders and values are engaged in. I do not know how one might wish to decide 'scientifically' the value of French and German culture; for here, too, different gods struggle with one another, now and for all times to come.

We live as did the ancients when their world was not yet disenchanted of its gods and demons, only we live in a different sense. As Hellenic man at times sacrificed to Aphrodite and at other times to Apollo, and, above all, as everybody sacrificed to the gods of his city, so do we still nowadays, only the bearing of man has been disenchanted and denuded of its mystical but inwardly genuine plasticity. Fate, and certainly not 'science,' holds sway over these gods and their struggles. One can only understand what the godhead is for the one order or for the other, or better, what godhead is in the one or in the other order. With this understanding, however, the matter has reached its limit so far as it can be discussed in a lecture-room and by a professor. Yet the great and vital problem that is contained therein is, of course, very far from being concluded. But forces other than university chairs have their say in this matter.

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What man will take upon himself the attempt to 'refute scientifically' the ethic of the Sermon on the Mount? For instance, the sentence, 'resist no evil,' or the image of turning the other cheek? And yet it is clear, in mundane perspective, that this is an ethic of undignified conduct; one has to choose between the religious dignity which this ethic confers and the dignity of manly conduct which preaches something quite different; 'resist evil – lest you be co-responsible for an overpowering evil.' According to our ultimate standpoint, the one is the devil and the other the God, and the individual has to decide which is God for him and which is the devil. And so it goes throughout all the orders of life.

The grandiose rationalism of an ethical and methodical conduct of life which flows from every religious prophecy has dethroned this polytheism in favor of the 'one thing that is needful.' Faced with the realities of outer and inner life, Christianity has deemed it necessary to make those compromises and relative judgments, which we all know from its history. Today the routines of every-day life challenge religion. Many old gods ascend from their graves; they are disenchanted and hence take the form of impersonal forces. They strive to gain power over our lives and again they resume their eternal struggle with one another. What is hard for modern man, and especially for the younger generation, is to measure up to workaday existence. The ubiquitous chase for 'experience' stems from this weakness; for it is weakness not to be able to countenance the stern seriousness of our fateful times.

Our civilization destines us to realize more clearly these struggles again, after our eyes have been blinded for a thousand years — blinded by the allegedly or presumably exclusive orientation towards the grandiose moral fervor of Christian ethics.

But enough of these questions which lead far away. Those of our youth are in error who react to all this by saying, 'Yes, but we happen to come to lectures in order to experience something more than mere analyses and statements of fact.' The error is that they seek in the professor something different from what stands before them. They crave a leader and not a teacher. But we are placed upon the platform solely as teachers. And these are two different things, as one can readily see. Permit me to take you once more to America, because there one can often observe such matters in their most massive and original shape.

The American boy learns unspeakably less than the German boy.

In spite of an incredible number of examinations, his school life has not had the significance of turning him into an absolute creature of examinations, such as the German. For in America, bureaucracy, which presupposes the examination diploma as a ticket of admission to the realm of office prebends, is only in its beginnings. The young American has no respect for anything or anybody, for tradition or for public office – unless it is for the personal achievement of individual men. This is what the American calls 'democracy.' This is the meaning of democracy, however distorted its intent may in reality be, and this intent is what matters here. The American's conception of the teacher who faces him is: he sells me his knowledge and his methods for my father's money, just as the greengrocer sells my mother cabbage. And that is all. To be sure, if the teacher happens to be a football coach, then, in this field, he is a leader. But if he is not this (or something similar in a different field of sports), he is simply a teacher and nothing more. And no young American would think of having the teacher sell him a Weltanschauung or a code of conduct. Now, when formulated in this manner, we should reject this. But the question is whether there is not a grain of salt contained in this feeling, which I have deliberately stated in extreme with some exaggeration.

Fellow students! You come to our lectures and demand from us the qualities of leadership, and you fail to realize in advance that of a hundred professors at least ninety-nine do not and must not claim to be football masters in the vital problems of life, or even to be 'leaders' in matters of conduct. Please, consider that a man's value does not depend on whether or not he has leadership qualities. And in any case, the qualities that make a man an excellent scholar and academic teacher are not the qualities that make him a leader to give direction in practical life or, more specifically, in politics. It is pure accident if a teacher also possesses this quality, and it is a critical situation if every teacher on the platform feels himself confronted with the students' expectation that the teacher should claim this quality. It is still more critical if it is left to every academic teacher to set himself up as a leader in the lecture-room. For those who most frequently think of themselves as leaders often qualify least as leaders. But irrespective of whether they are or are not, the platform situation simply offers no possibility of *proving* themselves to be leaders. The professor who feels called upon to act as a counselor of youth and enjoys their

trust may prove himself a man in personal human relations with them. And if he feels called upon to intervene in the struggles of world views and party opinions, he may do so outside, in the market place, in the press, in meetings, in associations, wherever he wishes. But after all, it is somewhat too convenient to demonstrate one's courage in taking a stand where the audience and possible opponents are condemned to silence.

Finally, you will put the question: 'If this is so, what then does science actually and positively contribute to practical and personal "life"?' Therewith we are back again at the problem of science as a 'vocation.'

First, of course, science contributes to the technology of controlling life by calculating external objects as well as man's activities. Well, you will say, that, after all, amounts to no more than the greengrocer of the American boy. I fully agree.

Second, science can contribute something that the greengrocer cannot: methods of thinking, the tools and the training for thought. Perhaps you will say: well, that is no vegetable, but it amounts to no more than the means for procuring vegetables. Well and good, let us leave it at that for today.

Fortunately, however, the contribution of science does not reach its limit with this. We are in a position to help you to a third objective: to gain *clarity*. Of course, it is presupposed that we ourselves possess clarity. As far as this is the case, we can make clear to you the following:

In practice, you can take this or that position when concerned with a problem of value – for simplicity's sake, please think of social phenomena as examples. If you take such and such a stand, then, according to scientific experience, you have to use such and such a means in order to carry out your conviction practically. Now, these means are perhaps such that you believe you must reject them. Then you simply must choose between the end and the inevitable means. Does the end 'justify' the means? Or does it not? The teacher can confront you with the necessity of this choice. He cannot do more, so long as he wishes to remain a teacher and not to become a demagogue. He can, of course, also tell you that if you want such and such an end, then you must take into the bargain the subsidiary consequences which according to all experience will occur. Again we find ourselves in the same situation as before. These are still problems that can also emerge

for the technician, who in numerous instances has to make decisions according to the principle of the lesser evil or of the relatively best. Only to him one thing, the main thing, is usually given, namely, the end. But as soon as truly 'ultimate' problems are at stake for us this is not the case. With this, at long last, we come to the final service that science as such can render to the aim of clarity, and at the same time we come to the limits of science.

Besides we can and we should state: In terms of its meaning, such and such a practical stand can be derived with inner consistency, and hence integrity, from this or that ultimate weltanschauliche position. Perhaps it can only be derived from one such fundamental position, or maybe from several, but it cannot be derived from these or those other positions. Figuratively speaking, you serve this god and you offend the other god when you decide to adhere to this position. And if you remain faithful to yourself, you will necessarily come to certain final conclusions that subjectively make sense. This much, in principle at least, can be accomplished. Philosophy, as a special discipline, and the essentially philosophical discussions of principles in the other sciences attempt to achieve this. Thus, if we are competent in our pursuit (which must be presupposed here) we can force the individual, or at least we can help him, to give himself an account of the ultimate meaning of his own conduct. This appears to me as not so trifling a thing to do, even for one's own personal life. Again, I am tempted to say of a teacher who succeeds in this: he stands in the service of 'moral' forces; he fulfils the duty of bringing about self-clarification and a sense of responsibility. And I believe he will be the more able to accomplish this, the more conscientiously he avoids the desire personally to impose upon or suggest to his audience his own stand.

This proposition, which I present here, always takes its point of departure from the one fundamental fact, that so long as life remains immanent and is interpreted in its own terms, it knows only of an unceasing struggle of these gods with one another. Or speaking directly, the ultimately possible attitudes toward life are irreconcilable, and hence their struggle can never be brought to a final conclusion. Thus it is necessary to make a decisive choice. Whether, under such conditions, science is a worth while 'vocation' for somebody, and whether science itself has an objectively valuable 'vocation' are again value judgments about which nothing

can be said in the lecture-room. To affirm the value of science is a presupposition for teaching there. I personally by my very work answer in the affirmative, and I also do so from precisely the standpoint that hates intellectualism as the worst devil, as youth does today, or usually only fancies it does. In that case the word holds for these youths: 'Mind you, the devil is old; grow old to understand him.' This does not mean age in the sense of the birth certificate. It means that if one wishes to settle with this devil, one must not take to flight before him as so many like to do nowadays. First of all, one has to see the devil's ways to the end in order to realize his power and his limitations.

Science today is a 'vocation' organized in special disciplines in the service of self-clarification and knowledge of interrelated facts. It is not the gift of grace of seers and prophets dispensing sacred values and revelations, nor does it partake of the contemplation of sages and philosophers about the meaning of the universe. This, to be sure, is the inescapable condition of our historical situation. We cannot evade it so long as we remain true to ourselves. And if Tolstoi's question recurs to you: as science does not, who is to answer the question: 'What shall we do, and, how shall we arrange our lives?' or, in the words used here tonight: 'Which of the warring gods should we serve? Or should we serve perhaps an entirely different god, and who is he?' then one can say that only a prophet or a savior can give the answers. If there is no such man, or if his message is no longer believed in, then you will certainly not compel him to appear on this earth by having thousands of professors, as privileged hirelings of the state, attempt as petty prophets in their lecture-rooms to take over his role. All they will accomplish is to show that they are unaware of the decisive state of affairs: the prophet for whom so many of our younger generation yearn simply does not exist. But this knowledge in its forceful significance has never become vital for them. The inward interest of a truly religiously 'musical' man can never be served by veiling to him and to others the fundamental fact that he is destined to live in a godless and prophetless time by giving him the ersatz of armchair prophecy. The integrity of his religious organ, it seems to me, must rebel against this.

Now you will be inclined to say: Which stand does one take towards the factual existence of 'theology' and its claims to be a 'science'? Let us not flinch and evade the answer. To be sure,

'theology' and 'dogmas' do not exist universally, but neither do they exist for Christianity alone. Rather (going backward in time), they exist in highly developed form also in Islam, in Manicheanism, in Gnosticism, in Orphism, in Parsism, in Buddhism, in the Hindu sects, in Taoism, and in the Upanishads, and, of course, in Judaism. To be sure their systematic development varies greatly. It is no accident that Occidental Christianity – in contrast to the theological possessions of Jewry – has expanded and elaborated theology more systematically, or strives to do so. In the Occident the development of theology has had by far the greatest historical significance. This is the product of the Hellenic spirit, and all theology of the West goes back to it, as (obviously) all theology of the East goes back to Indian thought. All theology represents an intellectual rationalization of the possession of sacred values. No science is absolutely free from presuppositions, and no science can prove its fundamental value to the man who rejects these presuppositions. Every theology, however, adds a few specific presuppositions for its work and thus for the justification of its existence. Their meaning and scope vary. Every theology, including for instance Hinduist theology, presupposes that the world must have a meaning, and the question is how to interpret this meaning so that it is intellectually conceivable.

It is the same as with Kant's epistemology. He took for his point of departure the presupposition: 'Scientific truth exists and it is valid,' and then asked: 'Under which presuppositions of thought is truth possible and meaningful?' The modern aestheticians (actually or expressly, as for instance, G. v. Lukacs) proceed from the presupposition that 'works of art exist,' and then ask: 'How is their existence meaningful and possible?'

As a rule, theologies, however, do not content themselves with this (essentially religious and philosophical) presupposition. They regularly proceed from the further presupposition that certain 'revelations' are facts relevant for salvation and as such make possible a meaningful conduct of life. Hence, these revelations must be believed in. Moreover, theologies presuppose that certain subjective states and acts possess the quality of holiness, that is, they constitute a way of life, or at least elements of one, that is religiously meaningful. Then the question of theology is: How can these presuppositions, which must simply be accepted, be meaningfully interpreted in a view of the universe? For theology,

these presuppositions as such lie beyond the limits of 'science.' They do not represent 'knowledge,' in the usual sense, but rather a 'possession.' Whoever does not 'possess' faith, or the other holy states, cannot have theology as a substitute for them, least of all any other science. On the contrary, in every 'positive' theology, the devout reaches the point where the Augustinian sentence holds: credo non quod, sed quia absurdum est.

The capacity for the accomplishment of religious virtuosos – the 'intellectual sacrifice'— is the decisive characteristic of the positively religious man. That this is so is shown by the fact that in spite (or rather in consequence) of theology (which unveils it) the tension between the value-spheres of 'science' and the sphere of 'the holy' is unbridgeable. Legitimately, only the disciple offers the 'intellectual sacrifice' to the prophet, the believer to the church. Never as yet has a new prophecy emerged (and I repeat here deliberately this image which has offended some) by way of the need of some modern intellectuals to furnish their souls with, so to speak, guaranteed genuine antiques. In doing so, they happen to remember that religion has belonged among such antiques, and of all things religion is what they do not possess. By way of substitute, however, they play at decorating a sort of domestic chapel with small sacred images from all over the world, or they produce surrogates through all sorts of psychic experiences to which they ascribe the dignity of mystic holiness, which they peddle in the book market. This is plain humbug or self-deception. It is, however, no humbug but rather something very sincere and genuine if some of the youth groups who during recent years have quietly grown together give their human community the interpretation of a religious, cosmic, or mystical relation, although occasionally perhaps such interpretation rests on misunderstanding of self. True as it is that every act of genuine brotherliness may be linked with the awareness that it contributes something imperishable to a super-personal realm, it seems to me dubious whether the dignity of purely human and communal relations is enhanced by these religious interpretations. But that is no longer our theme.

The fate of our times is characterized by rationalization and intellectualization and, above all, by the 'disenchantment of the world.' Precisely the ultimate and most sublime values have retreated from public life either into the transcendental realm of mystic life or into the brotherliness of direct and personal human relations. It is

not accidental that our greatest art is intimate and not monumental, nor is it accidental that today only within the smallest and intimate circles, in personal human situations, in *pianissimo*, that something is pulsating that corresponds to the prophetic *pneuma*, which in former times swept through the great communities like a firebrand, welding them together. If we attempt to force and to 'invent' a monumental style in art, such miserable monstrosities are produced as the many monuments of the last twenty years. If one tries intellectually to construe new religions without a new and genuine prophecy, then, in an inner sense, something similar will result, but with still worse effects. And academic prophecy, finally, will create only fanatical sects but never a genuine community.

To the person who cannot bear the fate of the times like a man, one must say: may he rather return silently, without the usual publicity build-up of renegades, but simply and plainly. The arms of the old churches are opened widely and compassionately for him. After all, they do not make it hard for him. One way or another he has to bring his 'intellectual sacrifice'- that is inevitable. If he can really do it, we shall not rebuke him. For such an intellectual sacrifice in favor of an unconditional religious devotion is ethically quite a different matter than the evasion of the plain duty of intellectual integrity, which sets in if one lacks the courage to clarify one's own ultimate standpoint and rather facilitates this duty by feeble relative judgments. In my eyes, such religious return stands higher than the academic prophecy, which does not clearly realize that in the lecture-rooms of the university no other virtue holds but plain intellectual integrity. Integrity, however, compels us to state that for the many who today tarry for new prophets and saviors, the situation is the same as resounds in the beautiful Edomite watchman's song of the period of exile that has been included among Isaiah's oracles:

He calleth to me out of Seir, Watchman, what of the night? The watchman said, The morning cometh, and also the night: if ye will enquire, enquire ye: return, come.

The people to whom this was said has enquired and tarried for more than two millennia, and we are shaken when we realize its fate. From this we want to draw the lesson that nothing is gained by yearning and tarrying alone, and we shall act differently. We shall set to work and meet the 'demands of the day,' in human relations as well as in our vocation. This, however, is plain and simple, if each finds and obeys the demon who holds the fibers of his very life.