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Abstract
Universities have long been dominated by a philosophy of inquiry that may be called knowledge-inquiry. This holds that, in order to do justice to the basic humanitarian aim of helping to promote human welfare, academic inquiry must, in the first instance, seek knowledge and technological know-how. First, knowledge is to be acquired; once acquired, it can be applied to help promote human welfare. But this philosophy of knowledge-inquiry is an intellectual and humanitarian disaster. It violates three of the four most elementary rules of rational problem solving conceivable, and as a result fails to give priority to the task of helping humanity resolve those conflicts and problems of living, such as the climate and nature crises, that need to be resolved if we are to make progress to a better world – a world in which there is peace, democracy, justice, liberty, and sustainable prosperity, for all. Very few academics today are aware of this rationality scandal. We urgently need to bring about a revolution in universities around the world, wherever possible, so that academic inquiry puts all four rules of rational problem solving into practice, and becomes rationally devoted to helping humanity learn how to make progress towards a better world. Knowledge-inquiry needs to become wisdom-inquiry, rationally devoted to helping humanity create a wiser world.

Is Bad Philosophy Responsible for the Climate Crisis? The Intellectual Revolution We Require to Galvanize the Social Revolution Needed to Create a Better World

(My title for the book, censored by the publisher)

Preface

The world is in a state of crisis. This all too apparent in the impending catastrophe of climate change. But it is also manifest in other environmental crises: the destruction of natural habitats, the devasting loss of wild life, the impending mass extinction of species. And there are other global problems that threaten our future: lethal modern war; the spread of modern armaments; the menace of nuclear weapons; pollution of earth, sea and air; rapid rise in the human population; increasing antibiotic resistance; the degradation of democratic politics, brought about in part by the internet.

It is not just that universities around the world have failed to help humanity solve these global problems; they have made the genesis of these problems possible. Modern science and technology, developed in universities, have made possible modern industry and agriculture, modern hygiene and medicine, modern power production and travel, modern armaments, which in turn made possible much that is good, all the great benefits of the modern world, but also all the global crises that now threaten our future.

What has gone wrong? The fault lies with a bad philosophy of inquiry – a bad view as to what the aims and methods of inquiry ought to be – built into universities around the world. The basic idea of this bad philosophy is that universities should help promote human welfare by, in the first instance, acquiring scientific knowledge and technological know-how. First, knowledge is to be acquired; once

acquired, it can be applied to help solve social problems, and promote human welfare. We may call this bad philosophy of inquiry *knowledge-inquiry*.

Knowledge-inquiry is an intellectual disaster. Judged from the standpoint of promoting human welfare, it is profoundly and damagingly irrational, in a structural way. THREE of the four most elementary rules of rational problem solving are violated. Reason is betrayed and, as a consequence, humanity is betrayed as well. As a result of being restricted to the tasks of acquiring and applying knowledge, universities are prevented from doing what they most need to do to help humanity solve global problems, namely, *engage actively with the public to promote action designed to solve global problems*. Universities do not take their basic task to be public education about what our problems are, and what we need to do about them. As a result of giving priority to the pursuit of knowledge, universities do not even give priority within academia to the vital tasks of articulating problems of living, local and global, and proposing and critically assessing possible solutions – possible and actual *actions*, policies, political programmes, ways of living.

A bad philosophy of inquiry, built into universities around the world is, in short, in part responsible for the genesis of many of our global problems, and our persistent failure subsequently to solve them. Bad philosophy is, in short, responsible in part for many of the ills of the modern world.

But if that really is the case, why has academic philosophy not highlighted this disastrous state of affairs long ago, and spelled out for everyone to understand what needs to be done to put matters right?

That is the question tackled in this book. Academic philosophy, I argue, has become esoteric, effete, lost in intricate puzzle solving, remote from the burning issues of the times, blind and dysfunctional – so outrageously blind and dysfunctional, indeed, that it hasn't even noticed that universities are dominated by a profoundly irrational and damaging philosophy of inquiry.

Once upon a time, philosophy was a profoundly significant, potent discipline. It made discoveries that transformed the path of human history. In the 16th and 17th centuries, natural philosophy – the philosophical study of nature – discovered the secret of how to improve dramatically our knowledge and understanding of the natural world, and in doing so, created modern science, a creation that transformed subsequent history, and made possible the modern world.

But then philosophy made three monumental intellectual blunders: the post-Cartesian blunder, the post-Newtonian blunder, and the Enlightenment blunder, all still unacknowledged and uncorrected right down to today. These three blunders, unacknowledged and uncorrected, had a devastating effect on philosophy. They trivialized the discipline, or reduced it to a discipline that peddled obscure absurdity and fantasy. Philosophy lost its way. And because the three intellectual blunders, made long ago, have still not been acknowledged and corrected today, philosophy still remains locked in trivial puzzle-solving, or bombastic obscurity, hopelessly dysfunctional, blind to the bad philosophy of inquiry of knowledge-inquiry that, built into universities, prevents them from devoting themselves, rigorously and effectively, to helping humanity learn how to make progress to a better world.

Correct the three intellectual blunders made by philosophy long ago, put right the bad repercussions that stem from these blunders, and extraordinarily fruitful consequences emerge, for philosophy itself, but also for domains that lie far beyond what would ordinarily be thought to be the territory of philosophy: for physics, for natural science, for social science, for academic inquiry as a whole, for education, for our social and cultural life, for our capacity to solve grave global problems that at present we seem incapable of resolving. Ultimately, for our capacity to make progress towards a genuinely good, civilized world. Correcting the three intellectual blunders properly, so that all the implications and repercussions are corrected as well, has profoundly fruitful implications for our entire social and cultural landscape. Philosophy becomes again the potent enterprise it once was. And, in particular, correcting the three ancient blunders would enable us to reshape universities so that they become actively, rationally and effectively devoted to helping humanity learn how to put a stop to the disaster of climate change.

Here, in brief, is an indication of what correcting these three ancient intellectual blunders would accomplish.

Correcting the post-Cartesian blunder has fruitful consequences for philosophy itself. It leads to a new kind of philosophy, *Critical Fundamentalism*, that takes, as its basic task, to promote imaginative and critical – that is, rational – thinking about how to solve our most urgent and fundamental problems of thought and life. A basic job of the academic philosopher is to promote this imaginative and critical speculative thinking, this fundamental problem-solving, so that it becomes a part of such fields as: education; science; academic thought more generally; and entirely generally, personal and public life, so that anyone in many a context may feel free to do philosophy in this way, not obsessively, but from time to time.

Critical fundamentalism, puts centre stage our fundamental problem – the problem that encompasses all others of thought and life: How can our human world, the world we see and touch, the world of consciousness, free will, meaning and value, exist and best flourish embedded as it is in the physical universe?

Critical Fundamentalism has further fruitful implications for philosophy itself. It leads to the solution to one of the most substantial, long-standing problems of philosophy, the philosophical problem of consciousness – what has been called "the hard problem of consciousness".

But fruitful implications of Critical Fundamentalism go far beyond philosophy itself. There are implications for the fields I have already mentioned, but also for much more: natural science; social science; the humanities; the arts; education; personal, social and political life; our capacity to achieve civilization.

Correcting the second great intellectual blunder, the post-Newtonian blunder, adds to, and reinforces the fruitful implications and repercussions of correcting the post-Cartesian blunder. It leads immediately to a new conception, and kind of, theoretical physics. Physics becomes a modern version of what it once was, *natural philosophy*, a synthesis of physics, metaphysics, methodology, epistemology, and philosophy. It emerges that rigour requires that physics must make explicit, and so criticizable, a problematic, influential but at present implicit metaphysical – i.e. untestable – assumption about the nature of the physical universe: it is such that physical laws governing the way physical phenomena occur are (more or less) *unified*. In other words, the universe is *physically comprehensible*.

In order to facilitate criticism of this substantial, highly problematic assumption, that influences discovery, interpretation and acceptance of physical theories, physics needs to adopt a new meta-methodology, *aim-oriented empiricism*, which represents the metaphysical assumption of unity of physics in the form of a hierarchy of assumptions, these assumptions becoming increasingly insubstantial as one goes up the hierarchy, and so increasingly likely to be true, and increasingly such that their truth is required for science, the pursuit of knowledge, or life, to be possible at all. As we go down the hierarchy, assumptions become increasingly substantial, and thus increasingly likely to be false. It is here that physics needs to concentrate criticism in an attempt to improve the assumption that is adopted, so that it does better justice to the actual lawful structure of the physical universe. At the two lowest levels in the hierarchy we have accepted fundamental physical theories (today, general relativity and the standard model – the quantum field theory of fundamental particles and the forces between them), and then, at the bottom, accepted experimental and observational results.

Associated with each metaphysical assumption there is a methodological rule which asserts: in order to be acceptable, an assumption, or physical theory, next down in the hierarchy, must (as far as possible) accord with the assumption above it. The metaphysical assumption accepted at the lowest level in the hierarchy must, in addition, be associated with the most empirically successful physical theories. The hope is that, as a result of subjecting the lowest level metaphysical thesis to sustained criticism, taking these two considerations into account, an improved metaphysical thesis will be adopted which, when made precise, becomes a new, revolutionary, empirically successful, unifying physical theory. The key idea of aim-oriented empiricism is, indeed, that as physics advances,

metaphysical assumptions and associated methods improve as well. As our knowledge, improves, our knowledge about how to improve knowledge improves too. As we learn more about the universe, we learn more about how to learn about it.

Aim-oriented empiricism has, I argue, a number of fruitful implications. It clarifies and specifies accurately actual methods employed in physics. It solves the problem of what it means to say that a physical theory is *unified* (a problem that even Einstein did not know how to solve). It solves a long-standing and absolutely fundamental problem of philosophy: Hume's problem of induction. And it has fruitful implications for physics in that it provides a rational, if fallible, method of discovery for physics, exploited by Einstein in discovering special and general relativity, but still not recognized and understood by physicists today. Einstein exploited the method of discovery successfully, but failed to articulate it properly.

Finally, aim-oriented empiricism has vital, fruitful implications, not just for physics, but for the whole of science. For it is not just in physics that basic assumptions, or aims, are problematic. This is the case for the whole of natural science. All scientific disciplines, in their choice of research aims, inevitably make problematic assumptions about (a) what is unknown but discoverable (b) what it is of value to discover, and (c) how discoveries that are made can be of benefit to social life. These inevitable, influential, often highly problematic assumptions concerning metaphysics, values and social use, inherent in research aims, need to be made explicit, within science, so that they can be subjected to sustained criticism in the hope of improving them. We need to see science as consisting of three domains of discussion: evidence, theory, and *aims*. Subjecting problematic aims of scientific disciplines to sustained critical scrutiny in this way, within the framework of aim-oriented empiricism, enhances the likelihood that science will discover that which is genuinely of value and use to humanity.

Aim-oriented empiricism, when generalized, has even broader, fruitful implications, as becomes apparent now as we consider the consequences of correcting the third monumental blunder, perhaps the most serious blunder of all.

Correcting this third, Enlightenment blunder has, potentially, enormously fruitful implications and repercussions for almost everything. The 18th century Enlightenment, especially the French Enlightenment, made a discovery of profound significance. It can be put quite simply like this. *We can learn from scientific progress how to make social progress towards an enlightened world*. In their lives, the *philosophes*, Voltaire, Diderot, Condorcet and the rest, did what they could to put this idea into practice. They fought dictatorial authority, dogma, and injustice with weapons no more lethal than argument and wit. Whenever possible, they promoted the virtues of doubt, criticism, learning from experience. They did what they could to get knowledge and reason taken seriously in public and personal life.

But in developing their profound discovery intellectually, the *philosophes* made three disastrous mistakes. In order to develop their discovery correctly, three things need to be got right.

(1) The progress-achieving methods of science need to be correctly specified.

(2) These methods need to be correctly generalized, so that they become fruitful, potentially, to any worthwhile human endeavour with problematic aims.

(3) These progress-achieving methods, generalized from those of science, need to be got into the fabric of social life, into politics, industry, economics, finance, business, the media, the law, and above all into the endeavour to make progress towards an enlightened world, so that we may make in social life some of the progress towards enlightenment that science makes towards greater knowledge.

The Enlightenment *philosophes* got all three steps wrong. They got the first step wrong. Misled by pronouncements of their intellectual hero, Isaac Newton, they thought that *evidence alone* is what matters as far as scientific method is concerned, and thus failed to conceive of, adopt and implement aim-oriented empiricism. Having failed to get the first step right, they naturally failed at the second

step. But it is when we come to the third step that the Enlightenment *philosophes* made their most disastrous mistake. In order to develop correctly their magnificent idea of learning from scientific progress how to achieve social progress towards an enlightened world, what they ought to have done is get a generalized version of scientific progress directly into social life itself. In their lives, as I have already indicated, the *philosophes* did indeed attempt to do something like that, and for that they should be forever honoured. But when it came to developing their idea intellectually, they did something quite different. They sought to apply progress-achieving methods of natural science, not to social life directly, but rather to the task of improving *knowledge* of the social world. They set about creating the social sciences: economics, psychology, sociology, anthropology, political science. This malformed version of the profound Enlightenment idea was then developed throughout the 19th century, by Auguste Comte, J.S. Mill, Karl Marx, Max Weber, Emilé Durkheim and. in the late 19th and early 20th centuries, it was built into universities with the creation of departments and disciplines of social science. The outcome is what we still have today, *knowledge-inquiry*, academic inquiry devoted to the acquisition and application of knowledge.

But this damagingly irrational kind of academic enterprise of knowledge-inquiry fails disastrously – as I have already pointed out – to help humanity learn how to solve global problems it has helped to create: the climate crisis, the ecological crisis, lethal modern war, the menace of nuclear weapons, pollution of earth, sea and air, rapid population growth increasing antibiotic resistance, degradation of democratic politics brought about in part by the internet.

In order to correct this third, devastating. blunder, all three steps of the profound Enlightenment idea of learning from scientific progress how to make social progress towards an enlightened world need to be put properly into practice. That requires that we do the following.

(1) We need to characterise the progress-achieving methods of natural science correctly, I n terms of aim-oriented empiricism.

(2) Aim-oriented empiricism needs to be correctly generalized to form aim-oriented rationality, fruitfully applicable to any worthwhile human endeavour with problematic aims.

(3) Aim-oriented rationality needs to be got into the fabric of social life, into all our other social and institutional endeavours besides science – into government, politics, industry, agriculture, business, economics, finance, the law, the media, personal and social life – so that something of the astonishing success of science in making intellectual progress towards greater knowledge may be got into the endeavour to make social progress towards an enlightened world.

The consequences of correcting the Enlightenment blunder in this way are dramatic and far-reaching. To begin with, social inquiry is transformed. Social inquiry is not social *science* ; the disciplines of social inquiry are not, primarily, devoted to the pursuit of *knowledge* of social phenomena. The primary task of social inquiry – economics, sociology, psychology, anthropology, political science and the rest – becomes to help humanity get aim-oriented rationality into the fabric of social life – above all, get aim-oriented rationality into powerful and influential institutions, businesses, organizations and activities that have worthwhile but problematic aims and methods, above all into those that have *harmful* aims and methods.

In other words, as a result of correcting the Enlightenment blunder, and correcting its implications and repercussions, social *science* becomes social *methodology* or social *philosophy*. What philosophy of science is to science (according to aim-oriented empiricism) so social inquiry is to social life: that enterprise which helps diverse aspects of social life improve aims and methods as life goes on.

But correcting the Enlightenment blunder leads to far more than a transformation in the nature of social inquiry. It leads, as we shall see, to a transformation in the entire academic enterprise. Almost every department and aspect of knowledge-inquiry is transformed. I have already mentioned that, judged from the standpoint of helping to promote human welfare, knowledge-inquiry violates three of the four most basic rules of reason conceivable. Modify knowledge-inquiry just enough to ensure that

these three rules are not violated, ensure that aim-oriented rationality is put into practice throughout, and a new kind of inquiry emerges, wisdom-inquiry as it may be called, designed and devoted to help people tackle problems lf living, local and global, rationally and effectively. Wisdom-inquiry actively engages with the social world to help people learn how to resolve conflicts and problems of living in increasingly effective and cooperatively rational ways. The basic aim of inquiry is to seek and promote wisdom, conceived of as the capacity, active endeavour, and perhaps desire to realize what is of value in life for oneself and others. Wisdom in this sense, includes knowledge and technological know-how, but much more.

Instead of helping to create global problems and subsequently failing to help solve them, as knowledge-inquiry has done, wisdom-inquiry would do all that it could to help humanity solve global problems that threaten our future, above all the climate and ecological crises. It would devote itself to helping humanity learn how to make progress towards a good, civilized, wise world.

We urgently need to bring about a revolution in our universities around the world, wherever possible, so that knowledge-inquiry becomes the more intellectually rigorous and far more humanly valuable wisdom-inquiry.

Chapter 1 Bad Philosophy, the Climate Crisis, and other Global Problems

Universities have long been dominated by a philosophy of inquiry that may be called *knowledge-inquiry*. This holds that, in order to do justice to the humanitarian aim of helping to promote human welfare, academic inquiry must, in the first instance, seek knowledge and technological know-how. First, knowledge is to be acquired; once acquired, it can be applied to help promote human welfare. But this philosophy of knowledge-inquiry is an intellectual and humanitarian disaster. It violates THREE of the four most elementary rules of rational problem solving conceivable, and as a result fails to give priority to the task of helping humanity resolve the climate crisis and other global problems that need to be resolved if we are to make progress to a better world – one in which there is peace, democracy, justice, liberty, and sustainable prosperity, for all. We urgently need to bring about a revolution in universities around the world, so that academic inquiry puts all four rules of rational problem solving into practice, and becomes rationally devoted to helping humanity learn how to make progress towards a better world. Knowledge-inquiry needs to become *wisdom-inquiry* – a kind of academic inquiry rationally devoted to helping humanity create a wiser world.

Chapter 2 Bad Academic Philosophy Responsible for Global Problems

Why has the damagingly irrational character of universities implementing knowledge-inquiry not been noticed and corrected? Academic philosophy, should have noticed and highlighted this disastrous situation long ago. It has not because of the scandalously dysfunctional state of the discipline. We urgently need to bring about a revolution in academic philosophy. Once upon a time, philosophy was immensely significant and fruitful. It created modern science and, in doing so, transformed our knowledge of the universe and the path of human history. But subsequently, philosophy made three monumental intellectual blunders which, never put right, are responsible for the disastrously trivial, dysfunctional character of philosophy today. Correct these blunders along lines discussed in chapters 3 to 7, and Critical Fundamentalism emerges, a new, extraordinarily fruitful kind of philosophy that pursues and promotes imaginative and critical thinking about our most urgent and fundamental problems of thought and life. The vital need for wisdom-inquiry becomes apparent. There are fruitful implications for philosophy, for physics, for natural science, for social science, for education, for academic inquiry, for personal and social life, for our capacity to solve global problems, and thus make progress towards a good, civilized world.

Chapter 3 The Post-Cartesian Blunder, and The Failure to Develop Philosophy as Critical Fundamentalism

How can the world as it appears to us, the world we live in, exist and best flourish embedded as it is in the physical universe? That is our fundamental problem, encompassing all others of science, thought, and life. Academic philosophy ought to have developed as the discipline that keeps alive imaginative and critical thinking about this problem – about how it interacts with more particular and specialised problems – in universities, and in cultural and social life. If philosophy had developed in this way, as *Critical Fundamentalism*, it would have noticed, and highlighted long ago the bad philosophy dominating academic inquiry. But philosophy has not, and still does not, put Critical Fundamentalism into practice. Modern philosophy began well: Descartes' Cartesian dualism is an early attempt at solving our fundamental problem. But then an extraordinary thing happened. Philosophers after Descartes rejected Cartesian dualism but, instead of returning to the problem that Descartes tried, and failed, to solve, namely our fundamental problem, they continued to struggle with problems generated by Cartesian dualism, the very doctrine they had rejected! That is the post-Cartesian blunder; it had a disastrous impact on subsequent academic philosophy. It blinded academic philosophers to the damaging irrationality of knowledge-inquiry.

Chapter 4 The Post-Newtonian Blunder, and The Failure to Develop Aim-Oriented Empiricism

Modern science began as natural philosophy. Two ingredients are essential: first, the adoption of the metaphysical conjecture that the universe is such that phenomena obey mathematically precise laws; and secondly, a scrupulous concern to assess theories by means of observation and experiment (in addition to compatibility with the metaphysical conjecture). Both elements are to be found in the crucial work of Kepler and Galileo; and they are to be found in the first edition of Newton's *Principia* too. But then, in response to criticism, Newton removed every hint of the conjectural and metaphysical from subsequent editions, and claimed dishonestly to have derived everything from phenomena by induction. As a result of Newton's immense prestige, scientists after Newton came to take for granted versions of his inductivist conception of science. As a consequence, a wedge was driven between science and philosophy, to the detriment of both. That is the post-Newtonian blunder. Never corrected, it has devastatingly trivialized subsequent philosophy, in depriving it of contact with science and the world. We need to correct the post-Newtonian blunder, acknowledge that all versions of the Newtonian conception of science are untenable, implement aim-oriented empiricism, and transform science so that it becomes natural philosophy.

Chapter 5 The Post-Enlightenment Blunder, and the Failure to develop Academic Inquiry so as to become Rationally Devoted to Helping Humanity Create a Civilized World

The *philosophes* of the 18th century French Enlightenment made a profound discovery. *We can learn from scientific progress how to make social progress towards an enlightened world.* But, in developing this idea, the *philosophes* blundered. They should have, first, generalized the progress-achieving methods of science, and then got the resulting methods into social life so that social progress might be made towards an enlightened world with some of the success achieved by science in making progress in knowledge. This would have involved developing social inquiry as social *methodology*, or social *philosophy*. But the *philosophes* and their successors proceeded quite differently. They applied the progress-achieving methods of science, not directly to social life, but to improving *knowledge* about

social life – to developing social inquiry as social *science*. That is the post-Enlightenment blunder. Unacknowledged and uncorrected, it led universities in the 20th century to devote themselves to the pursuit of knowledge. Correct the blunder, and it becomes apparent we need a revolution in universities so that their basic task becomes to seek and promote wisdom, and humanity comes to have what it so urgently needs, institutions of learning rationally devoted to helping us learn how to make progress towards a better world.

Chapter 6 What We Need to Do

This Chapter begins with a resumé of the argument of the book. It then discusses three global problems we must solve if we are to have any hope of a decent future: the climate crisis, the nature crisis – the crisis, that is, of the degradation or destruction of natural habitats, such as tropical rain forests, the catastrophic loss of wild life, and the impending mass extinction of species – and third, the menace posed by nuclear weapons ready for launching at the touch of a button. The extent to which the philosophical, scientific, academic and educational revolution that has been argued for in this book would, if it were to occur, help solve these urgent global problems, is considered.

Appendix 1 How to Solve Hume's Problem of Induction

The post-Newtonian view that evidence alone decides what theories are accepted in science fails to solve Hume's problem of induction. But this Newtonian view is untenable in any case: in persistently accepting unified theories only, and ignoring endlessly many disunified rivals that fit available phenomena even better, physics thereby makes an implicit metaphysical assumption: the universe is such that all disunified theories are false. That refutes the post-Newtonian view of science. It is thus not surprising that the Newtonian view fails to solve Hume's problem. But does aim-oriented empiricism do better? It does; it solves the problem. First, in acknowledging that physics makes a substantial, metaphysical assumption about the nature of the universe, aim-oriented empiricism is more rigorous intellectually than all versions of its post-Newtonian rival. Secondly, the hierarchical structure of aim-oriented empiricism provides the best means for developing metaphysical assumptions of science that represent the nature of the universe in increasingly accurate and truth-like ways. Third, it is shown that Hume's argument that there cannot be necessary connections between successive states of affairs is false. What exists now may well determine necessarily what exists in the future. We are justified in accepting the results of science.

Chapter 8 Appendix 2 How Aim-Oriented Empiricism Would Benefit Science

A major consideration in favour of aim-oriented empiricism is that it has fruitful implications for science. This chapter concentrates on fruitful implications for physics. As I have already indicated, aim-oriented empiricism facilitates the improvement of the metaphysical assumptions of physics. Specific metaphysical assumptions made by physics, whether explicitly acknowledged or not, influence the discovery, assessment, and interpretation of physical theories. In facilitating the improvement of the metaphysical assumptions of physics, aim-oriented empiricism is thus able to improve the discovery, assessment, and interpretation of physical theories, and thus improve physics itself, and contribute to its progress. It is argued that the historical failure to put aim-oriented empiricism into practice – the failure to hold metaphysical theses associated with physics conjecturally, so that they became open to improvement – substantially delayed acceptance of Newtonian theory, Maxwellian electrodynamics, and still delays discovery of an acceptable version of quantum theory, nearly 100 years after Heisenberg and Schrödinger created the unsatisfactory version of the theory we have today, orthodox quantum theory. Finally, it is argued that Einstein exploited the rational, if fallible, method of discovery of

aim-oriented empiricism in discovering both special and general relativity. Subsequently, Einstein misapplied his method of discovery, and as a result, met with failure.

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