Do universities betray reason and humanity?
The urgent need for an academic revolution

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Global Problems

1. Lethal character of modern war and terrorism
2. Nuclear weapons
3. Rapid population growth
4. Destruction of natural habitats and rapid extinction of species
5. Immense inequalities of wealth and power around the globe
6. Pollution of earth, sea and air
7. Impending devastation of climate change
The Role of Modern Science and Technology

Modern science and technology have brought great benefits to humanity, but have also made all our current global problems possible.

For science and technology make possible modern industry and agriculture, modern armaments, modern medicine and hygiene, which in turn make possible the lethal character of modern war, nuclear weapons, population growth, habitat destruction, extinction of species, inequalities of wealth and power, pollution, and global warming.

Some blame science for our problems, but this profoundly misses the point.

What we suffer from, rather, is science and technological research pursued in a way that is dissociated from a more fundamental concern to help humanity solve problems of living in increasingly cooperatively rational ways.
Basic Claim

We have a long tradition of academic inquiry devoted to the pursuit of knowledge, with science and technological research at its core.

Judged from the standpoint of promoting human welfare, this is damagingly irrational. It has made our current global problems possible.

We need a new kind of more rigorous inquiry devoted to the pursuit of wisdom – wisdom being the capacity to realize what is of value in life, for oneself and others, thus including knowledge and technological know-how, but much else besides.

We urgently need to bring about an intellectual revolution in our universities and other institutions of learning and research.
Outline of the Argument

1. Two Kinds of Inquiry:-
   Knowledge-inquiry and Wisdom-inquiry
2. Knowledge-inquiry is what we have at present
3. It is profoundly and damagingly irrational, in a wholesale, structural way.
4. Wisdom-inquiry results when knowledge-inquiry is modified to cure it of its irrationality.
5. Two arguments in support of the claim that we need to put wisdom-inquiry into academic practice.
   These appeal to:-
   (i) Problem-solving rationality
   (ii) Aim-pursuing rationality
6. Conclusion: We urgently need to bring about an academic revolution
What do I mean by Rationality?

As I use the term, rationality appeals to the existence of methods, strategies or rules which, if put into practice, other things being equal, give you the best chance of solving your problems, achieving your aims.

The rules of reason do not tell you precisely what to do, and do not guarantee success. They help you discover and decide what is really in your best interests, and do not decide for you.

They are meta-methods. They presume you can already put a wide range of methods successfully into practice, and tell you how best to marshal what you can already do in order to solve new problems.
Knowledge-Inquiry

In order to help promote human welfare, academic inquiry must, in the first instance, acquire reliable knowledge and technological know-how. Academia must devote itself to solving problems of knowledge. Once knowledge is acquired, it can be applied to help solve social problems.

Values, political ideas and programmes, policies, philosophies of life, must all be excluded from the intellectual domain of inquiry – which is restricted to the acquisition of knowledge.

This is the kind of inquiry we have inherited from the past. It still dominates academia today (although some academic work does not comply with its edicts).
Two Important Preliminary Points

(a) In order to achieve what is of value in life, the problems we need to solve are, fundamentally, problems of living, of action, not problems of knowledge. It is what we do, or refrain from doing, that really matters. Even when new knowledge is needed, as it is in medicine or agriculture, it is what this knowledge enables us to do, that achieves what is of value, not the knowledge as such (except when knowledge is itself of value).

(b) In order to realize what is of value in life more successfully than we do at present, we need to discover how to tackle our conflicts and problems of living in more cooperatively rational ways than we do at present.
Four Basic Rules of Rational Problem-Solving

1. Articulate, and try to improve the articulation of, the problem to be solved.

2. Propose and critically assess possible solutions.

3. If the problem to be solved is especially difficult, break it up into easier-to-solve, preliminary, specialized, subordinate problems, in an attempt to work gradually towards the solution to the basic problem to be solved.

4. But in this case ensure that basic and specialized problem-solving interact with one another, so that each influences the other.
Damaging Irrationality of Knowledge-Inquiry

Knowledge-Inquiry puts rule 3 into effect splendidly, in creating and pursuing the multitude of specialized disciplines of modern academic inquiry.

But, in giving priority to solving problems of knowledge, knowledge-inquiry violates rules 1, 2 and 4.

Knowledge-inquiry violates three of the four most elementary rules of rational problem solving one can think of.

It is this structural irrationality that has helped create our global problems – in enhancing our power to act as a result of acquiring knowledge and technological know-how, without enhancing our power to act wisely.
Second Argument

The Enlightenment Programme: To learn from scientific progress how to achieve social progress towards an enlightened world.

Three Steps

1. Correctly identify the progress-achieving methods of science.
2. Generalize them so that they become fruitfully applicable to any worthwhile, problematic human endeavour.
3. Apply these generalized progress-achieving methods to the task of trying to make progress towards an enlightened (wise, good, civilized) world.
Standard Empiricism

In science, claims to knowledge must be assessed impartially with respect to evidence alone. Considerations of simplicity, unity or explanatory power may influence what theory is accepted as well, but not in such a way that the universe itself is presumed to be simple, unified or comprehensible.

Science must not make any persistent assumption about the world independent of evidence, let alone against the evidence.
Basic Objection to Standard Empiricism

In physics, only unified fundamental theories are ever accepted, even though endlessly many empirically more successful, disunified rival theories can always be formulated.

This means physics makes a big, implicit assumption about the universe: all disunified theories are false. The universe is, in some way, unified.

But in what way? Because this assumption is substantial, influential and problematic, it needs to be made explicit in physics, so that it can be critically assessed, so that alternatives can be developed and assessed, in an attempt to improve it.

The outcome is a conception of science I call aim-oriented empiricism.

[A theory is unified if it attributes the same laws to all the phenomena to which the theory applies. It is disunified if it attributes different laws to some ranges of phenomena.]
Refutation of Claim that Evidence alone Determines what Theory is Accepted in Science

- T: predictive success for T
- B: no predictive success for T as yet
- C: T ostensibly refuted
- D: outside the range of application of T

T* (empirically successful throughout A to D)
Step One: From Standard to Aim-Oriented Empiricism

Big Assumption: there is some kind of underlying Unity in the Physical Universe

Evidence

Accepted Physical Theories

T

Simplicity or Unity

Obscured by Standard Empiricist Idea that Evidence alone determines Choice of Theory

Compatibility with Requirement of Simplicity or Unity

Compatibility With Evidence
Step One: From Standard to Aim-Oriented Empiricism

Big Assumption: there is some kind of underlying Unity in the Physical Universe

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Compatibility With Evidence

Accepted Physical Theories

Evidence
Step One: Aim-Oriented Empiricism

**Level 7**
The thesis that the universe is partially knowable.

**Level 6**
The thesis that the universe is meta-knowable (methods being improvable).

**Level 5**
The thesis that the universe is comprehensible.

**Level 4**
The thesis that the universe is physically comprehensible (physicalism).

**Level 3**
Blueprint: best current specific version of physicalism.

**Level 2**
Accepted fundamental physical theory.

**Level 1**
Empirical data.

The diagram includes various nodes labeled PK, MK, C, P, B, T, and a circle indicating current scientific knowledge represented by: -

- Alternatives to meta-knowability
- Meta-knowable alternatives to comprehensibility
- Comprehensible alternatives to physicalism
- Physically comprehensible alternatives to current blueprint
- Increasingly restrictive non-empirical methodological principles (symmetry or invariance principles)
Aim-Oriented Empiricism: Further Implications

Science seeks, not truth merely, but rather the highly problematic aim of truth presupposed to be explanatory – the universe being presupposed to be physically comprehensible in some way or other.

More generally, science seeks truth that is, in one way or another, of value – an even more problematic aim. Furthermore, it seeks to make what it discovers available to help promote human welfare, even more problematic.

There are, in short, highly problematic metaphysical, value and political assumptions built into the aims of science.

We need a new, more rigorous and valuable kind of science that recognizes three domains of discussion: (1) Evidence (2) Theory, and (3) Aims.

Different sciences have different specific aims, often incorporating results from a more fundamental science. These specific aims, and associated methods, may evolve as scientific knowledge evolves. In this way, aim-oriented empiricism does justice to evolving and diverse aims and methods of the various branches of natural science, while at the same time specifying common aims and methods for all of natural science. The problem of scientific method is solved.
Step Two: Generalize Aim-Oriented Empiricism to Form:

**Aim-Oriented Rationality:** Given any worthwhile endeavour with a problematic aim, represent the aim in the form of a hierarchy of aims and associated methods, aims becoming increasingly unspecific, and so increasingly unproblematic, as one goes up the hierarchy, in this way forming a framework of unproblematic aims and methods within which much more specific and problematic aims and associated methods may be imaginatively explored and critically assessed, in the hope of improving aims and methods as one acts, as one lives.

Aim-oriented rationality offers the hope that we may be able to get into personal, social, political and global life something of the kind of progressive success achieved by natural science.

Step Three: Feed Aim-Oriented Rationality into Social Life

Granted that, as far as academia is concerned, this is the task of social inquiry, this means social inquiry is social *methodology* or social *philosophy* not, primarily, social *science*. 
Aim-Oriented Rationality Applied to Creating a Wise World

Level 1: Human Experience (History)
Level 2: Policies, projects, new laws, institutions programmes.
Level 3: Rival specific ideas for world civilization.
Level 4: A world with global democracy that puts the new Enlightenment into practice.
Level 5: A world that is democratic, liberal, just, sustainable, rational and wise.
Level 6: A world in which everyone shares equally in enjoying sustaining and creating what is of value, in so far as this is possible.
Level 7: That ideal, realizable social order (whatever it may be) we ought to try to attain in the long term.

Diagram:
- Civilization
- Socialism
- Nationalism
- Best current specific ideas for world civilization
Wisdom-Inquiry Does Better Justice to Inquiry Pursued for Its Own Sake

1. Problems of living include problems of seeing, experiencing, apprehending, becoming a part of, what is of value. Analogy between inquiry and seeing.
2. Change of basic aim, from truth to realization of what is of value, means values, feelings and desires, which have no rational role within knowledge-inquiry, do have such a role within wisdom-inquiry. As a result, wisdom-inquiry encourages the development of the passion to understand whereas knowledge-inquiry tends not to. Wisdom-inquiry “puts mind and heart into touch with one another so that we may develop heartfelt minds and mindful hearts”.
3. Wisdom-inquiry, a synthesis of rationalistic and romantic ideals of integrity, would discourage hypocrisy about aims, and would do better at distinguishing training and education.
4. Wisdom-inquiry, in pursuing education as problem-solving, encourages and does not crush, Einstein’s “delicate little plant” of “holy curiosity”.
5. Aim-oriented empiricism does better justice to the search for explanation and understanding in physics than does standard empiricism.
6. Wisdom-inquiry social inquiry does far better justice to the development of mutual understanding between people than does knowledge-inquiry social science.
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Conclusion
We urgently need to bring about a revolution in our schools and universities so that their basic aim becomes to help us learn how to create a wiser world.

For further information see:-
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From Knowledge to Wisdom (1984; Pentire Press, 2007)

Two Great Problems of Learning: Science and Civilization
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