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## Comments on Council of Europe, Parliamentary Assembly, Document 11375

My name is Thomas Torrance and I am a member of the academic staff of the Department of Economics at the School of Management & Languages, Heriot-Watt University, Edinburgh. From the days when I was an undergraduate student, I have had an interest in the development of economic thought and the philosophy of science as it applies to the social sciences. As well as economic topics, my teaching activities now include the university's three modules in moral & social philosophy.

I write to give my views on the Council of Europe's Document 11375, "The dangers of creationism in education". I emphasise that the opinions stated are given in a personal capacity and do not necessarily reflect the stance of my employing institution.

What this Document refers to as "creationism" or "intelligent design" did not originate (as it implies in paragraph B5 of the long section headed "Report of Mr Guy Lengagne" (revised)) with the writings of the English theologian William Paley (1743-1805). The Document seems unaware that these relatively modern doctrines are a development of the traditional argument for the existence of God known as the "Teleological Argument" or the "Argument from Design", fashioned in detail at least as far back as the medieval thinker Thomas Aquinas (1224-1274). This argument features in European thought of all centuries since then, and even the religiously sceptical Scottish philosopher David Hume (1711-1776) saw considerable merit in his own strictly *deistic* version of the argument. In the twentieth century, the (post-Darwinian) philosopher Bertrand Russell (1872-1969), who was not in any sense a religious believer, in his *History of Western Philosophy* (1946) speaks in complimentary terms of the version of the argument advanced by the German mathematician Gottfried Leibniz (1646-1716). Russell writes: "This argument has no formal logical defect; its premises are empirical, and its conclusion professes to be reached in accordance with the usual canons of empirical inference".

Document 11375 not only disparages this long-debated Argument in an absurd fashion (see the assertion in the Document summary to the effect that "Creationism, in any of its forms, such as 'intelligent design', is not based on facts, does not use any scientific reasoning and its contents are definitely inappropriate for science classes"), but also seeks to deploy fanciful accusations of various sorts against those who show interest in the Argument and consider it worthy of contemporary debate and discussion. It is untrue, for instance, (Document para A12, Draft Resolution) that those interested in the Teleological Argument typically possess links with "extreme right-wing political movements" and, furthermore, often harbour sinister plans "to replace democracy with theocracy". I have never met anyone with an interest in the rational standing of the Teleological Argument who could even remotely be described in this way.

I find it both sad and reprehensible that the Council of Europe should consider curtailing discussion and debate in educational institutions on the academically respectable set of ideas represented by the Teleological Argument. The Council's proposals should play no role in a free and tolerant society – surely it's the Area of the Council of Europe we are talking about, not the late and unlamented USSR! It is not relevant in the slightest whether or not certain distinguished experts consider the Teleological Argument, in any of its forms, ancient or modern, successfully achieves its stated objectives. The notion of free academic discussion only has practical significance when ideas that may not be widely supported can be openly discussed and critically debated.

Speaking of the Teleological Argument in the context of modern biology, I myself hold that it is a strictly empirical and not an *a priori* matter whether all currently unexplained instances of biological complexity *will eventually* be shown to exhibit *apparent* design (rather than *actual* design), on the basis of the Darwinian mechanism of natural selection operating on randomly inheritable variations. In para B24, however, the Document elevates what it calls “methodological materialism” (the method of research enquiry that recommends all explanations to refer only to efficient physical causation) to be co-extensive with the scientific enterprise itself. Para B49 also reflects the same sentiment - “in order to claim to be scientific, it is only necessary to refer to natural causes in one's explanations”.

I see that on many occasions, notably in paras A16, B86, B89 and B102, the Document asserts that science “seeks not to explain ‘why things are’ but to understand how they work”. Many may disagree with this statement as an accurate picture of the aims of science. But, nonetheless, if we accept the statement for present purposes and agree that science only seeks to understand “how things work”, it is surely a serious defect of methodological materialism that, as a method of pursuing enquiry, it seems incapable of explaining how the *empirical* phenomena of *consciousness* work or even exist in a universe that is purportedly totally physical in character. If we take phenomena such as “purposefulness”, “semantic meaning”, and “rationality”, how are these things to be explained on a purely physical-causal basis? We are not here dealing with a materialistic gap – that is, phenomena for which no convincing materialistic explanation has *to date* been found. The problem is deeper rooted than this. There seems to be no way in logic that *intentional* concepts such as the above can be analysed without remainder in wholly physical terms, and yet these concepts are essential to explain all events (eg economic events) associated with the phenomena of consciousness. And if explanations based on the tenets of methodological materialism are unable to account for how consciousness works or how it emerges, then it cannot be correct that, as a method, methodological materialism has universal application over the whole range of observable phenomena.

No recent writer has tried harder to produce a materialist analysis of what he refers to as the “mystery of consciousness” than the bio-chemist Francis Crick (1916-2004), famed for his role in the discovery of DNA in 1953. Yet, his own his work on this topic yields no definitive conclusion. Near the end of his book *The Astonishing Hypothesis - The Scientific Search for the Soul* (1994), Crick writes: “[t]here is always [the] possibility that the facts support a new alternative way of looking at the mind-brain problem that is significantly different from the rather crude materialistic view many neuroscientists hold today and also from the religious point of view”.

It should be appreciated that important areas of systematic empirical enquiry, namely the social sciences including my own subject of economics, presuppose the legitimacy for explanatory purposes of a range of irreducible *sui generis* intentional concepts in addition to those concepts associated with physical causality. Either all these disciplines are not sciences as conceived by the advocates of methodological materialism or there is something defective with

methodological materialism itself as a self-evident universal explanatory paradigm. I myself consider the status of methodological materialism to be a debatable *meta*-scientific doctrine, and as such it cannot be an uncontroversial part of what *defines* the nature of legitimate scientific enquiry.

Rather than demonising those who disagree with the universality of the philosophical stance represented by methodological materialism, I suggest that the Council of Europe should be recommending educational institutions to explain to those they teach that a clear distinction should always be made between: (1) the philosophical presuppositions of a theory (which give the types of variable or “ontology” which can be legitimately considered), and (2) the theory itself (which gives particular instances of the “allowed” variables and their inter-relationships). The meta-scientific injunction to “seek only physical causes” (methodological materialism) is likely to be fully appropriate when, say, confronting puzzling electrical phenomena of some kind. However, this injunction seems inappropriate to the task should we be investigating, say, the intellectual factors that tend to persuade people it is rational to prefer some offered explanatory theories over others. In this latter example, of the sociological task of explaining scientific theory-preference itself, would any sensible person seek an explanation consistent with methodological materialism?

In conclusion, while I accept that those currently discussing Document 11375 strongly favour explanations framed in a materialistic mode, especially in the field of biology, I urge them to recognise that this cannot be the only type of explanatory paradigm. Philosophical or meta-scientific questions about methodology (or indeed about anything else), I contend, cannot be properly settled by administrative fiat, as proposed by this Document. Rational debate, conducted in civilised language, is not only what is suited to an intellectually open society, but is also likely in the end to produce enlightening outcomes. Historically, free and unhindered debate and the growth of knowledge are natural partners.

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