## EMPIRICISM, RATIONALISM, REDUCTIONISM AND THE UNFORGIVEABLE

Empiricism states that knowledge derives from the formulation of ideas based on empirical evidence, rather than cultural influences: we are each born without pre-existing concepts, and knowledge is derived from experience. John Locke (1632-1704) famously introduced the notion that consciousness and knowledge begin at birth with the mind a *tabula rasa*, or blank slate. In *An Essay Concerning Human Understanding* (1689) Locke propounded that the only knowledge that humans can have is a *posteriori*.

In a modern sense, empiricism is the foundation of the scientific method, in which theories must be tested through observation and experiment rather than on *a priori* reasoning, intuition, accepted truths or cultural mores. It is also the case that all hypotheses and theories, and more widely, all knowledge, are subject to continued testing, revision and, potentially, falsification.

Empiricism is sometimes contrasted with rationalism, in which knowledge can be derived from reason, independently of the senses. Robert Boyle (1627-1691) bridged the epistemological divide: while he championed



John Locke by Godfrey Kneller

experimental science, claiming that theory should conform to observation, in *A Discourse of Things above Reason* (1681), Boyle distinguished things that can be known through experience, and those that can be known by reason, or rationalism.

Along with Descartes, Spinoza and Leibniz, Boyle was articulating the concept that certain truths exist and that the intellect can directly grasp these truths. In other words, rationalists believe that certain rational principles exist, in areas such as ethics, logic and mathematics that are fundamental in existence. These truths are part of our rational nature (endowed or evolved, according to your belief system), and while sensory experience might bring them into our consciousness, they are knowable to us by intuition alone. In short, reality itself has an inherently logical structure such that certain truths can be grasped directly rather than through experiment.

A century-and-a-half later, the firmament of the nineteenth century saw major growth in population; the concentration of work into larger and denser urban areas; new forms of property and wealth (including real estate, equities, stocks and bonds); technological progress through mechanisation and the creation of 'the political masses'. And, of course, new ideologies grew around them, notably conservatism, liberalism and radicalism. All this led to numerous new avenues of intellectual thinking and the emergence of *social sciences*.

In the early years, there was a drive towards unification, the formation of a single science of humanity, to take its place alongside the physical sciences of astronomy, biology, chemistry and physics. Jeremy Bentham, Auguste Comte, Karl Marx and Herbert Spencer were all advocates of a unified science of society. In his six volume



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Cours de Philosophie Positive, Auguste Comte (1798-1857) sought to demonstrate beyond doubt the need for a science of humanity, one which he called *sociology*.

The nascent social sciences however went down a specialist path rather than a unifying one. By the turn of the twentieth century, several overlapping and competitive social sciences were evolving, and splitting further. At first quite straightforward – anthropology, economics, (human) geography, political science, social psychology, sociology – these disciplines mushroomed, becoming in the process, ever more specialist. Social sciences spread rapidly, reaching into a vast array of human activities, while following the traditions of empiricism and rationalism.

Buried deep within the many specialisms of the social sciences of today, we have *Built Environment*, drawing on architecture, economics, human geography and others. And buried even deeper, we have *Workplace*, drawing largely upon architecture and design. It is here, on such minuscule twigs of the might oak tree of knowledge, that specialisation reaches its apotheosis, in extreme reductionism.

Reductionism runs counter to the grand traditions of empiricism and rationalism; it decontextualises research and thinking, as analysis is divided into ever smaller boxes until, finally, we find one that helps to confirm our expectations. This process of description and categorising is comforting because it gives us a level of simplicity that isn't otherwise there. The danger comes when we use these specific boxes to generate prescriptive models that claim to provide a more general understanding. Such output can be used to help paint a picture that is incomplete and, at worst, possibly hopelessly wrong. *Reductio ad absurdum*.

Mark Eltringham has identified a mutated form of reductionism, which he elegantly encapsulated in the concept of 'idea laundering', the process "whereby an oversimplified idea or piece of misinformation [a product of reductionism] is repeated so often that it acquires a patina of legitimacy and ultimately becomes a presupposition".

One of the most toxic aspects of this is how ideas can be laundered through seemingly respectable sources of information, including in those in academia ... This is a particularly insidious form of misinformation because ... a laundered idea can be widely accepted as true when it is overly simplistic, shaky in some other way or even complete bullshit.<sup>i</sup>

The Covid-19 pandemic has led to a plague of laundered ideas. In the rush to 'get something out there' and to be seen to 'be engaged in the debate', too often empiricism and rationalism are parked, and reductionism given a turbo boost. Thus many Workplace discussions pay not the slightest nod to, for example, agglomeration economics, anthropology, land economics, or mass transit systems. Many lack any concept of empiricism or appeal to a wider rationalism. Instead they are reduced to an introspective discussion about whether relatively well-rewarded and cossetted office workers should be allowed to work from home twice a week.



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Not so much moving the deck chairs on the Titanic, as giving them a fresh coat of varnish! But more seriously, it is an unforgiveable waste of an opportunity.

The world of 'Workplace' risks isolating itself, adding yet another narrowly defined silo to an already silo-rich supply industry that has failed to serve its customers directly for decades. The future of office work will be a minor tremor compared to the huge earthquake of changes currently impacting our relationship with work generally and the physical and technological structures of twenty-first century urban economies.

The opportunity now is to re-define our relationship with work, which means our relationship with cities. The built environment professions, real estate industry and Workplace professionals need to ask: what does *society* require today, under vastly-changed circumstances? How can we create physical infrastructure for society, for people, for customers?

If we are to find long-term answers, they will come from more investment in research, education and thinking, based on the traditions of empiricism and rationalism rather than reductionism.

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<sup>&</sup>lt;sup>i</sup> Eltringham M (2020) *The Allure of Workplace Bullshit* Available at: https://workplaceinsight.net/the-devil-is-in-the-detail-of-workplace-ideas/