

ARMCHAIR PHILOSOPHY

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The article presents an anti-exceptionalist view of philosophical methodology, on which it is much closer to the methodology of other disciplines than many philosophers like to think. Like mathematics, it is a science, but not a natural science. Its methods are not primarily experimental, though it can draw on the results of natural science. Like foundational mathematics, its methods are abductive as well as deductive. As in the natural sciences, much progress in philosophy consists in the construction of better models rather than in the discovery of new laws. We should not worry about whether philosophy is *a priori* or *a posteriori*, because the distinction is epistemologically superficial.

Keywords: Armchair philosophy, experimental philosophy, *a priori*, *a posteriori*, abduction, model-building, philosophical methodology, thought experiments

КАБИНЕТНАЯ ФИЛОСОФИЯ

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В этой статье автор выступает против исключительного статуса философской методологии. Он полагает, что философская методология имеет значительно больше сходств с методологией других дисциплин, чем думают философы. Как и математика, философия – наука, однако не естественная наука. Философский метод не является экспериментальным, хотя он и опирается на результаты естественно-научного познания. Как и в фундаментальной математике, методы в философии могут быть абдуктивными и дедуктивными. Так же, как в естественных науках, прогресс в философии в большей степени связан с построением лучших моделей, чем с открытием новых законов. Автор считает, что нам не следует беспокоиться о том, является ли философское знание *априорным* или *апостериорным*, поскольку это различие, с эпистемологической точки зрения, существует лишь на поверхности.

Ключевые слова: кабинетная философия, экспериментальная философия, *априори*, *апостериори*, абдукция, построение моделей, философская методология, мысленный эксперимент

The phrase ‘armchair philosophy’ is currently used, often pejoratively, to describe philosophy done in the supposedly traditional *a priori* way, by contrast with philosophy that learns from real-life experiments, performed either by natural scientists or by philosophers themselves. A video of a burning armchair was displayed on a website for the x-phi



(‘experimental philosophy’) movement, suggesting that philosophers should stop theorizing from their armchairs about how the world must be, and instead go and observe how it actually is. In particular, according to some proponents of x-phi, if philosophers want to argue from what ‘we’ would say about various hypothetical scenarios in thought experiments, they should first find out what statistically significant numbers of laypeople actually *do* say about those scenarios. That echoes a much earlier survey-based inquiry by the Norwegian philosopher Arne Næss (1938) into the lay understanding of philosophically significant terms of ordinary language, later invoked as a reproof to ordinary language philosophy.

Confusingly, the talk of armchairs goes back to the Oxford philosopher J.L. Austin’s classic case *for* ordinary language philosophy, which he contrasted with a less firmly grounded style of do-it-yourself armchair theorizing [Austin, 1956–57]:

our common stock of words embodies all the distinctions men have found worth drawing, and the connexions they have found worth making, in the lifetimes of many generations: these surely are likely to be more numerous, more sound, since they have stood up to the long test of the survival of the fittest, and more subtle, at least in all ordinary and reasonably practical matters, than any that you or I are likely to think up in our armchairs of an afternoon – the most favoured alternative method.

This methodological attitude to distinctions in ordinary language can be traced back from Austin to the Oxford realist John Cook Wilson, who wrote: ‘Distinctions current in language can never be safely neglected’ [Wilson, 1926, p. 46].

For Austin, armchair philosophers ignore the distinctions made by ordinary language, available in the armchair but shaped, calibrated, and tested by centuries of experience beyond it. For an x-phi critic, armchair philosophers apply those distinctions, but without checking whether they do so with ethnic, gender, or other bias. However, many experimental philosophers do not subscribe to that ‘negative programme’; they regard x-phi as a valuable complement to the armchair, not a rival. Early experimental results supporting charges of ethnic and gender bias have generally not been repeated under improved standards of experimental method ([Sytsma and Buckwalter, 2016] surveys the state of play in x-phi; Alexander 2012 is an introduction). To that limited extent, the methodology of ordinary language philosophy has been vindicated. But, of course, even if a particular verdict on a thought experiment is a human universal – for instance, in the philosophy of perception, if everyone agrees that the subject sees a tree in such-and-such circumstances – that would not show the verdict to be *correct*. Some innate human bias might favour a false verdict.

Such concerns are liable to degenerate into a more generic scepticism. For our verdicts on thought experiments are really just judgments about



hypothetical scenarios, in effect counterfactual conditionals: ‘If that scenario were to obtain, the subject would (not) see the tree’. There is no reason to expect our unreflective assessments of such conditionals to use different cognitive mechanisms from those used in assessing similar counterfactual conditionals outside philosophy. From an evolutionary perspective, we often need to be reliable in assessing conditionals, for otherwise we will make too many mistakes when choosing between options (‘Would the outcome be better *if* I chose option A than *if* I chose option B?’). The epistemology of thought experiments is an unintended by-product of the epistemology of counterfactual conditionals [Williamson, 2007].

Conditional judgments can be anywhere on the spectrum between paradigms of the *a priori* and paradigms of the *a posteriori*. For instance, ‘If you were to look through my bedroom window, you would see a tree’ is clearly *a posteriori*, while ‘If you were to look in the middle of a forest, you would see a tree’ is much more *a priori*. ‘If you were to look towards a tree *n* metres away, without obstructions, you would see it’ varies in how easy it is judge from an armchair, depending on the value of ‘*n*’. This continuous variation puts in question the depth of the distinction between *a priori* and *a posteriori* knowledge [Williamson, 2013a]. It is not just variation in the role of background knowledge. Even long-forgotten experiences play a role in moulding and calibrating our capacities to apply words of our language more or less accurately, including to hypothetical scenarios. The philosopher in the armchair, thinking about such cases, may still benefit from such pre-armchair experiences in applying capacities for pattern-recognition to the imagined possibilities. Armchair thinking is far from a ‘pure’ method.

The belief that philosophy should *never* rely on non-armchair methods is increasingly rare. Philosophers of perception often learn from experimental results in the psychology of perception; it would be foolish not to. Philosophers of space and time must take account of theories in physics, most obviously Einstein’s special relativity. Of course, some philosophers insist that their interest is in our *experience* or *concepts* of space and time, not in physical space and time, but such attempts to avoid interaction with the natural and social sciences do not end well. Even if they can escape physics, how can they ignore the non-armchair work of experimental psychologists on human experience of time, or of linguists on the semantics of tense in different natural languages? As for the alleged contrast between the ‘conceptual’ questions of philosophy and the ‘empirical’ questions of the sciences, it depends on an unworkable theory of concepts [Williamson, 2007]. In any case, contemporary metaphysicians are less interested in our experience or concepts of space and time than in the real nature of space and time themselves.

Such pressures may suggest that philosophy can become properly rigorous only by adopting the ‘empirical’ methodology of the natural and social sciences. But that conclusion is fallacious. It neglects



the most rigorous science of all: mathematics, whose methodology is paradigmatically armchair. Mathematicians prove their theorems without relying on experiments. *Logic* is a branch of both mathematics and philosophy, with an armchair methodology. Imitating physics would not help logicians answer their questions.

A natural objection is that logic is a special case: in most branches of philosophy, we cannot hope to answer the questions with a mathematical proof. What relevance has the mathematical precedent to those branches?

The flaw in the objection is that the methodology of mathematics is not purely deductive. Mathematical proofs proceed step-by-step, and ultimately those steps are instances of *first principles*, which mathematicians accept without further proof. For present purposes, we need not worry whether those first principles are laws of logic, or axioms of set theory, or something else. What matters is that their epistemological status needs explaining. Some mathematicians and philosophers have hoped that there is no epistemological problem about the first principles, because they are valid ‘by definition’. But that answer does not work. Definitions merely shift the burden of proof from the *definiendum* to the *definiens*; they do not make it evaporate. Nor are the first principles of mathematics indubitable. They have all been doubted, by heretical logicians who understood their content and were still not convinced.

Bertrand Russell faced this problem over a century ago. His project had been to base mathematics on the solid foundations of purely logical laws, but he found that the required principles were not perfectly self-evident. He concluded that their support is *inductive* rather than deductive. In a paper first delivered in 1907 [Russell, 1973], he argued:

...we tend to believe the premises because we can see that their consequences are true, instead of believing the consequences because we know the premises to be true. But the inferring of premises from consequences is the essence of induction; thus the method in investigating the principles of mathematics is really an inductive method, and is substantially the same as the method of discovering general laws in any other science.

Russell’s account fits the practice of researchers on the foundations of mathematics even today. Of course, what he has in mind is not simple enumerative induction, because the latter only takes us to generalizations formulated in the same terms as the data were described in, whereas foundational theories of mathematics typically introduce new basic terms. We are now more likely to use C.S. Peirce’s term ‘abduction’ for Russell’s method. We may also call it ‘inference to the best explanation’, on the understanding that in mathematics the relevant explanations are not causal [Lipton, 2004]. Rather, they unify many specific, apparently disparate mathematical facts by deriving them all from a handful of more general principles, as informative, simple, and elegant as they can consistently be. Scientists may argue for a fundamental theory of physics in just



the same way, as Russell saw. The case of mathematics shows that an abductive methodology is applicable beyond the non-armchair natural and social sciences. It is needed for the armchair science of mathematics.

An abductive methodology makes sense in philosophy too. A clear and well-articulated philosophical theory may consist of a few general principles, as informative, simple, and elegant as they can consistently be. A philosopher may then argue for the theory by demonstrating its capacity to provide unifying explanations of many specific, apparently disparate matters. The leading analytic metaphysician of the late twentieth century, David Lewis, explicitly argued for his signature theories in just that way [Lewis, 1986]. I have used it, and defended its use, in both logic and metaphysics [Williamson, 2013b, 2016, 2017a]. In such cases, enough constraining data may already be available in the armchair: we typically need go no further to find counterexamples to invalid principles. Thus mathematics constitutes a relevant precedent of an armchair abductive methodology for philosophical theorizing.

Many branches of philosophy deal mainly with the messy, unruly human world, where informative exceptionless universal generalizations are in short supply. Examples are epistemology, moral and political philosophy, and philosophy of mind, language, and art. One might wonder how far abduction can take us in such cases.

The problem of messy, unruly complexity is not specific to philosophy. The natural and social sciences have to deal with it too. Most macroscopic systems are like that; so are many microscopic ones. For instance, biologists have learned not to expect many informative, exceptionless universal generalizations about living systems. In response, scientists have developed a *model-building* methodology [Weisberg, 2013]. A model is in effect a precise description of a highly simplified hypothetical example of the kind of system in question. Typically, the description comprises mathematical equations defining how the system changes over time. The behaviour of the model can be investigated by rigorous mathematical means. The results help scientists understand the observed behaviour of real systems of the given kind. In many areas of science, progress consists not in the discovery of new exceptionless universal laws of nature but in the development of better and better models.

Sometimes the point of a model is to make quantitatively accurate predictions. But not all cases are like that. For instance, some biologists wonder why species tend to reproduce by two sexes rather than three. A good way to answer the question is by exploring models of three-sex reproduction. One lays down reasonable rules for how three-sex reproduction might work, and then follows the development of such a system over time, by mathematical calculation or computer simulation. The hope is to see what goes wrong – perhaps lack of variety in the species, making it vulnerable to changes in its environment. That would help explain the lack of three-sex species. It is not a matter of quantitatively accurate



predictions. Rather, it is a *qualitative* role for models. One might call it armchair biology, but not in a pejorative sense.

Models can play a qualitative role in philosophy too [Williamson, 2017b]. In some areas they already do so. Formal epistemologists study mathematical models of situations involving knowledge and uncertainty, using the frameworks of Bayesian probability theory and epistemic logic. For example, we are easily confused by statements like ‘John knows that Mary knows that John knows that Mary knows that John is unfaithful’. The best way to reason rigorously about them is to use mathematical models of knowledge and ignorance developed by armchair philosophers [Hintikka, 1962]. Such models are applied extensively in computer science and theoretical economics [Fagin et al., 1995]. Similarly, using precise methods developed in logic, armchair philosophers of language have developed formal semantic frameworks for calculating the literal meaning of sentences from the literal meanings of their constituent words. Those methods are widely used in linguistics to study meaning in natural languages [Heim and Kratzer, 1998]. However much they simplify the linguistic phenomena, they provide deep insight into the structural basis of language, without which the more complex phenomena cannot be properly understood. In moral and political philosophy, the mathematical methods of game theory and decision theory have been used to build models of complex choices. For example, they help explain why, if everyone acts rationally, the outcome is sometimes worse for everyone.

According to a common stereotype, there is progress in natural science but not in philosophy. The contrast depends on an obsolete view of scientific progress as consisting in the discovery of universal laws. Philosophers have not discovered many of those, at least outside logic. But once we realize that much scientific progress consists in the development of better models, we should realize too that philosophy has also made much progress of just the same kind. The formal models available in epistemology and the philosophy of language are far better than those available in 1950; they provide deeper and more sophisticated insight into the underlying structure of knowledge and meaning. Those models have been developed almost entirely in the armchair. But most philosophers, even many of those who in effect engage in model-building, do not think of their methodology in those terms. As a result, they grossly underestimate how much progress their own discipline has made.

Philosophy is far less different from the rest of inquiry than many philosophers like to think. Much of it is more similar to the most theoretical parts of the natural and social sciences than they are to the most experimental and observational parts of the same sciences. But that should not lead us to expect a gradual convergence in methodology between philosophy and those sciences, for philosophy also has much in common with the foundational parts of mathematics, the most armchair science of all. As long as there are armchairs, they will be good places to think.



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