Why David Hume is Wrong
by Peter Gibson

I suspect that a survey asking British philosophers for their favourite philosopher would be won by David Hume. It is not difficult to see why. He is a British empiricist, thoroughly in tune with the cautious assumptions of modern science, he was a good writer, and he had a genius for puncturing the high hopes of more optimistic philosophers. I think it is also significant that there is little conflict between Hume and the views of the later Wittgenstein (who would probably come second in the poll). If you merge the two of them into a single package you will conclude that truth is largely 'in an abyss' (Democritus *B117*), no consensus can ever be reached on theories of reality, and philosophy must drift off into writing history and playing whist (for Hume), or pursuing socio-linguistics and cultural studies (for Wittgenstein). This looks to me like a bad result for philosophy. I also think this particular package is poorly founded, since Hume was wrong about almost everything.

The main views of Hume are:

1) there is no evidence that we have an ego or self
2) claims about real causation are empty
3) predictions and inductive generalisation are merely psychological
4) laws of nature are just patterns of events
5) science will never understand deep physical truths
6) seemingly 'miraculous' events should always be rejected
7) all concepts are formed from sense impressions
8) morality is just socially useful emotions
9) no values are to be found in nature
10) reason is subservient and impotent
11) no necessities can be observed in nature
12) possibilities are merely what is imaginable
13) belief is just a feeling
14) all qualities are 'secondary' (and none are 'primary')
15) imagination can only be composed of experiences
16) raw experience and perception are the same
17) genuine free will is just an illusion
18) no argument (esp. from design) can establish God's existence

These summaries are, of course, fairly simplistic. Hume's expressions of them are more nuanced, and modern scholars sometimes claim that he has been misunderstood. The summaries will, though, suffice for a brief survey, the purpose of which is to encourage a more sceptical approach to what is now called Humeanism (of which David Lewis is the most notable modern exponent). I will offer a short response to each of the eighteen views, and then a summary.

1) **The Self**. Hume says introspection only reveals a bundle of impressions, and nothing to unify them (1740: 1.4.6). He offers a tentative theory that associations might tie the bundle together, but then bravely admits failure (1740: appendix). Introspection is a dubious methodology for this task, since hunting for myself sounds like a cat chasing its tail. A more obvious procedure is to ask whether the tangle of interior mental life needs co-ordination. In the words of Jerry Fodor "If there is a community of computers living in my head, there had also better be somebody who is in charge; and, by God, it had better be me" (2000: 207)
2) **Causation**. Hume says causation is either one event regularly followed by another, or the idea of one event immediately triggering the idea of another (1748: 7.2.60). This tells us either how we notice causal events, or how we conceive of them, but offers no explanation of what causation actually is. Modern suggestions are that causation is what is necessitated by a law, or that it is any transfer of energy. Hume gives criteria for

identifying the problem, but his cautious approach forbids attempts at a solution. Serious enquiry should surely do more than describe the superficial features of the problem?

3) **Induction**. Hume cannot understand why a general truth can be inferred from a thousand instances when it cannot be inferred from one (1748: 5.1.36). His only theory is a psychological one, that after 999 instances the observation has become habitual. The generalisation is thus insufficiently grounded to be taken as true, and induction is not a rational process. However, induction is just learning from experience, and we would be crazy not to do that, so it *is* rational (even if it is not deductive logic). Induction tells us which generalisations are worth investigating. It tells us where to dig deeper. If all the sufferers from cholera are drinking from the same pump, maybe we should remove the handle from the pump, and put that water under a microscope. Regularities are not mere habits – they are signals that an explanation is needed.
4) **Laws of Nature**. Building on Hume's accounts of causation and induction, modern Humeans espouse the Regularity Theory of the laws of nature. That is, a law of nature states an unwavering regularity in the pattern events, marked by a willingness to support a counterfactual claim. Thus gravity is expressed as 'if you were to drop this object at this location, it would accelerate at such-and-such a velocity'. As with induction, this is a remarkably superficial account of a deep phenomenon, offering a description but no understanding. The law can cope with 'more of the same', but says nothing about the mechanisms which will explain more surprising manifestations. It offers safe predictions, but not predictions which are surprising but true.
5) **Science**. Hume lived after Newton, in an age when science was beginning to accelerate, but he was amazingly pessimistic about its prospects. For example, he was confident that we will never understand how bread nourishes us (1748: 4.2.32) – a fact which is now fully understood. Why is this? Francis Bacon, 120 years earlier, was enthusiastic about the future of science. Hume's lack of ambition is the problem. If all you do is observe patterns in the events in front of you, and all you get is descriptions of regularities, why would you ever bother to construct experiments, just to get more such descriptions? The great scientists unravelled the causes of the patterns.
6) **Miracles**. It is often assumed that all miraculous claims are refuted by Hume's sceptical argument. He defines a miracle as a breach in the law of nature, and defines a law of nature as our best supported inductive generalisation, and then insists that the laws always trump the miracles, because the laws always have better support. Thus miracles can never occur (1748: 10.1.91). But that means that major surprises (such as quantum non-locality) must also be rejected. Instead of announcing an exciting discovery, the first observer of a black swan in Australia should have gone to have his eyes tested, because the inductive support for the whiteness of swans was overwhelming. It also means that if a startling miracle actually did occur then we should reject it, which seems unwise.
7) **Concepts**. It is basic to Hume's account of thought that all concepts must have experiential ingredients (and are bogus if they fail to do so) (1748: 1.2.14). Years later the logical positivists said the same about language, drawing on Hume's desire to commit meaningless books 'to the flames'. Hume loosely lumps mathematics among the 'relations of ideas', but he makes no attempt to show how mathematical concepts are rooted in experience. A case could be made for this in simple arithmetic (and Mill had a go; 1843: 2.6.2), but the idea that the concepts of category theory or string theory are either rooted in experience or bogus seems far too stringent. People can invent meaningful abstract categories in any abstruse area of thought they fancy.
8) **Morality**. Hume combines expressivist meta-ethics with a quasi-utilitarian normative ethics. That is, we have all sorts of socially directed emotions, such as envy and sympathy, and morality is discouraging some and fostering others, with the aim of promoting general social welfare and happiness (1751: 9.1.222). Thus his position combines the weaknesses of both theories. If morality is just feelings, that implies that morality disappears when we are calm and objective, which can't be right. He didn't

offer the vulnerable precision of mature utilitarianism, but he did focus on consequences, which neglects motives, virtues, ideals and duties. This downgraded picture of moral foundations and principles may appeal to some, but there are huge gaps.

9) **Values**. Hume famously said you cannot infer duties from facts (1740: 3.1.1), which leads to the modern fact-value distinction favoured by scientific empiricists. If reality reduces to physics, and physics is value-free, then values are a mere icing on the value-free cake of reality, put there by human emotions and preferences. This popular and simple view is hard to refute, and a person who rejects all values can hardly be argued back into them. But such a person strikes most of us as a sociopath, unlikely to lead a successful life. Normal human attitudes see values everywhere. Health is an obvious example, where a routine preference (and thus value) for sickness over health seems close to insanity. Destruction, pain and ugliness can be valued, but probably only to prove a philosophical point, and the obvious values of life will soon reappear.

10) **Reason**. 'Reason is and ought to be the slave of the passions', said Hume (1740: 2.3.3), which seems doubly surprising, since Socrates (when discussing weakness of will) believed that all decisions are rational, and nearly all philosophers have dreamed of reason's triumph. Hume's preference for passions implies a belief that they are the best guide to life. This brings us closer to other animals, and devalues his own exceptional rational gifts. Modern neuroscience supports Hume's idea that reasoning is an emotional business, but autonomous reasoning can hardly be denied in maths, logic and precise sciences. It would be surprising and self-defeating to hear any philosopher disown reason in this Humean way, while engaged in serious debate.

11) **Necessity**. Most empiricists doubt whether it makes sense to say that some true statement is 'necessary' (i.e. it *must* be true). How could experience demonstrate such a thing? 'Necessity …is nothing but an internal impression of the mind' says Hume (1740: 1.3.16). Logical positivists said definitions are necessary, but Quine doesn't even allow that (1953). So is anything necessarily true? Modern candidates include inferences within systems of logic or maths, and also some truths of science, such as that water is composed of hydrogen and oxygen (and has to be wet at 20° C). Humeans assume the laws of nature are contingent (and could vary in other universes), but that is only based on the empiricist account of necessity, and may be quite wrong. If 'every event has a cause' is a necessary truth, that won't be merely because of the impressions in our minds.

12) **Possibility**. It is a standard assumption that a state of affairs is seen as possible if it is imaginable, and impossible if we cannot conceive of it. This conventional view is the empiricist one, expressed by Hume as 'nothing we imagine is absolutely impossible' (1740: 1.2.2). This view has recently come under strong attack. Dennett remarks that 'the besetting foible of philosophers is mistaking failures of imagination for insights into necessity' (1998: 366). You can imagine a swan flying in outer space, but that doesn't make it possible. What is possible or impossible needs careful research, not armchair imagination.

13) **Belief**. In one of Hume's more surprising passages, when required to define 'belief' he sees it as nothing more than a positive emotional response to some proposition (1748: 5.2.39). He studiously avoids saying that believing a proposition is commitment to its truth. This conforms to his view of reason, which seems to be little more than disguised emotion. It seems easy to tell when we hold something to be true, but much harder to distinguish the precise feeling that distinguishes belief, so this thought threatens epistemological paralysis.

14) **Primary qualities**. The distinction between primary qualities (objectively in the object), and secondary qualities (misleadingly influenced by the observer) was made familiar by Locke. Hume followed Berkeley in rejecting the distinction, saying that all perception is of the secondary type (1748: 12.1.122). No one thinks the distinction is a sharp one, but it is fundamental to science, which aims for (and often discovers) what is objectively the

case. Mathematics can be applied to the primary qualities, and secondary qualities like smell do not figure in physics books. Without the distinction we lose confidence in science, experts, and our grasp of basic facts.

15) **Imagination**. Hume says all imagination is like picturing the 'golden mountain' from a fairy tale – we have to combine experiences of gold and mountain to achieve it (1748: 2.13). In normal life he is probably right, but at the limits of human enquiry, in mathematics, physics and cosmology, the experiential restrictions on our imagination have to be transcended. At the limits of quantum reality, and in the higher reaches of Cantor's infinities, we are pushing imagination beyond its mundane limits. There are, of course, restrictions on what our minds can achieve, but Hume's conservatism puts an a priori block on what we can aspire to.

16) **Perception**. It is a familiar problem when studying Enlightenment philosophy that the word 'idea' is used very imprecisely. In Hume there is a similar problem with 'impression' (1748: 2.12), and these are the two foundational words of his epistemology. Modern discussions of perception tend to use 'sensation' for the most elemental experiences, such as a brief glimpse of a red patch. The nature of full-blown 'perception' is controversial, and it is often argued (especially by Kantians) that perception is inescapably conceptual, and may even be inescapably propositional. The idea of The Given, which is raw uninterpreted experience (as implied by 'impressions'), is now commonly dismissed as naïve (and not endorsed by neuroscience).

17) **Free will**. Hume says that we have 'a false sense of liberty' (1748: 8.1.72), and that the only liberty we have is acting 'according to the determinations of the will' (1748: 8.1.73). He has nothing to say about what influences the will itself, other than that people are remarkably predictable. He thus rejects free will just as categorically as Spinoza does, and the modern desire to label him a 'compatibilist' seems inaccurate. In this instance we cannot say that Hume is wrong, but he has little to contribute to the modern free will debate.

18) **God**. It is clear now that Hume was an atheist, but his most critical religious work was published posthumously. In it he swiftly rejects the ontological and cosmological arguments for God's existence, saving his main energies for the design argument, which he takes to be the most popular. His main point is that an argument from analogy (seen in Paley's famous watch example, where design is inferred from structure) is too flimsy to achieve such a great end. In a riotously wicked section, Hume chuckles about what the nature of our world seems to imply about its designer, if we assume the analogy with human design (1779: pt V). Whatever one's religious views, it is hard to disagree with Hume about the argument. Nevertheless, the design argument is not dead, because it reappears in discussions of the cosmological constants of nature, which somehow conspire to produce a complex and vitalised world. It survives Hume's criticisms because the new evidence has a purity and simplicity which was lacking in the badly designed superficial features that bothered Hume. The design argument remains very controversial, but it is not dead.

This very concise commentary only indicates a line of criticism in each case, and convinced Humeans will defend him against nearly all of them. Seen together, though, I believe they are enough to show that Hume has somehow gone badly wrong. I take the problem to be simple – that strong and dogmatic empiricism massively restricts our thinking, and cramps our legitimate ability to explain and understand the world.

A rival account is beautifully presented by Descartes, in his example of the molten candle wax (*Med* 2). We all reject the empirical evidence that the wax has changed into an entirely new substance, preferring a rational judgement that it actually remained the same. Empiricists will rightly say that Descartes left out two crucial observations – that the smooth transition from solid to liquid was observed, and that the process is reversed when the puddle of wax cools down. If you combine the full empirical evidence, it is said, the truth that it remains wax throughout will emerge, without the intervention of 'reason'. For Hume this

would be done by principles of association (resemblance, proximity and causation), which generate the correct picture in some largely automated way. But no one thinks that two things which differ in appearance are fundamentally the same, simply because they are similar, close and causally connected. These are just further pieces of evidence which have to be assessed, and without a detached overview no conclusion can be reached.

This may point to a preference for rationalism over empiricism, but it doesn't need to. What is really needed is more ambitious empirical thinking. Empiricism is a disaster if it doesn't extend beyond immediate experience, and probably ends in solipsism (given that Berkeley cannot justify the existence of other minds). The minimum requirement is that empiricists must trust memory, though it is hard to see why they should. If memory can extend immediate experience, then why not other techniques? If we at least assume other minds, then we can use the testimony of other witnesses (some of them long dead). Russell gives a simple example of how we extend experience - that it is crazy to think that your cat ceases to exist, or becomes a mere possibility of experience, when it briefly disappear behind the furniture (1912: 10). We cannot get through the day without such simple extrapolations from what we see. What other extrapolations can we make? Astronomers infer good explanations of remote events, based on tantalising glimpses of evidence. Reliable and objective generalities can be inferred from induction, as long as it searches out the causes of the enumerated examples. Mathematics reveals the existence of new particles in physics. We can reliably speculate about what is inherently unobservable. We accept theories because of their beautiful coherence, despite large gaps in the evidence. And so on. A whole array of techniques are available for reaching beyond experience, but this would be chaotic without the capacity for judgement, to assemble the necessary models and theories.

David Hume was a great philosopher. His explanation of the ruthlessly empirical approach to human understanding is awesome in its thoroughness, its urbane clarity, and its insight into new problems. His writings are an enduring landmark in philosophy. But I hope I have shown that the route he explored is not actually the best route to take. It is too restricted, conservative and superficial, and we need to dig deeper.

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