

Examine Hume's argument that we have no reason to expect the future to resemble the past. Was he right?

Introduction

This question asks us to consider one aspect of the problem of induction, first raised by David Hume. One of our primary concerns in practical life is the rational guidance of action. We want to know which consequences are likely to follow from which courses of action, so we can obtain consequences consonant with our goals and desire for self-preservation. In order to do this, we need to make assumptions about what the future is going to be like. The universally adopted and practical approach is to assume that, *ceteris paribus*, the future will be like the past, so that we can use experience, in particular of past regularities, to project into the future. Hume doesn't doubt that this approach is *sensible*. What he asks, as we will see, is what are the *grounds* for it.

This discussion is based initially on Section IV ("*Sceptical Doubts Concerning the Operations of the Understanding*") of Hume's *Enquiry Concerning Human Understanding*. I have re-ordered Hume's argument, as Hume has an extended discussion of causation in this passage, most of which is not directly relevant to the question at hand and which leads Hume into some repetition.

I will first of all describe Hume's arguments, then provide a critique of the main points. I will then describe and consider other arguments in consideration of the thesis that we have no reason to expect the future to resemble the past. My conclusion is that Hume's arguments survive criticism very well.

What is Hume's Argument?

(i) Two Types of Truth and Reasoning

Hume divides what we can know, or that into which we can meaningfully enquire, into two categories – (1) the relations of ideas and (2) matters of fact. Similarly, he divides reasoning into two categories: (1) *demonstrative* reasoning, dealing with the relations of ideas and (2) *moral* reasoning, dealing with matters of fact and real existence.

(ii) Contraries and Contradictions

Truths of class (1) include those of the mathematical sciences and whatever is intuitively or demonstrably certain. Mathematical propositions are discoverable by the mere operation of thought without dependence on anything existing in the universe. The contrary of any truth of reason is a contradiction.

Truths of class (2) are not ascertained in the same way as those in class (1), and our evidence for their truth, however great, is not of the same nature. The *contrary* of any matter of fact is possible because it *does not* imply a contradiction. That the sun will *not*

rise tomorrow is as intelligible as that it *will*. Since it implies no contradiction that the course of nature should change, there can be no *demonstrative* arguments that it will not.

If we were to suppose that the future would not resemble the past, all inductive arguments from experience would fail. No argument from experience can prove that the future will resemble the past, since they are founded on that very supposition. However regular the past has been, there is no proof that the future will be the same without some new argument or inference.

(iii) Arguments from Cause and Effect Rejected

Past experience can give direct and certain knowledge of those objects at times directly observed, but why should we extrapolate to other objects and other times that may be only superficially similar? The following two propositions are not the same: (a) certain objects in the past have been associated with certain affects and (b) other, apparently similar objects will, in the future, be associated with the same effects. Hume admits that (b) is in practice always inferred from (a), but challenges anyone to produce the chain of reasoning leading to the inference, denying that the connection is intuitive.

If our expectation that similar effects will always arise from apparently similar causes were based on reason, it would, Hume claims, be perfectly clear after one instance. However, things are otherwise; it is only after a long course of uniform experience that we attain firm assurance of a particular event. Hume asks where is the process of reasoning that draws different conclusions from one instance to that from 100, where these are the same as the original.

Hume claims that any arguments persuading us to take the past as the standard for future experience can be at most only probable. All reasoning concerning matters of fact is founded on the relation of cause and effect, which alone enables us to go beyond our senses and memory. However, our knowledge of that relation derives entirely from experience, and additionally, all our conclusions from experience depend on the assumption that the future will resemble the past. So, any attempt to prove that the future will resemble the past using arguments based on cause and effect must be circular.

(iv) Ignorance of the Secret Powers of Bodies

Hume states that all agree that there is no known connection between the “sensible qualities” of bodies and their “secret powers”, and that in consequence the mind cannot be led to form conclusions as to their constant conjunction by anything that it knows of their nature. The sensible qualities of bread appear to have no connection with its secret nourishing powers, otherwise we could infer these powers from the sensible qualities without the aid of experience – contrary to plain fact and, Hume notes, the opinion of all philosophers.

Can we argue that, because in the past such sensible qualities were conjoined with such secret powers, we should expect such sensible qualities always to be conjoined with

similar secret powers? Hume argues that these two propositions are not in any respect the same and the supposed inference is neither intuitive nor demonstrative. So, of what sort is it? Saying it is experimental begs the question, since all arguments from experience presuppose the future will be like the past and that similar powers will be conjoined with similar sensible properties.

(v) Knowledge of Secret Powers is no Help

We cannot claim to have learnt the nature of bodies from past experience, for their hidden nature could change while their sensible qualities remain the same. What logic ensures against this possibility?

(vi) Theory and Practice

Hume accepts that only a fool or madman would dispute the authority of experience and reject this guide to human life. However, the philosopher must be allowed to examine the principle of human nature that gives such authority to experience and allows us to draw advantage from the similarities in nature. Saying that our practice refutes our doubts is to misunderstand the question. Hume readily admits that, as an agent, he is satisfied, but as a philosopher he remains curious, if not sceptical, and wants to know the foundation of the inference.

(vii) Simple Theories Required

Hume notes that a child who has burnt his hand in a candle-flame will expect the same experience from a similar cause and avoid it in future, so in some cases the expectation of the future resembling the past arises without repeated experience, and demands by what process of ratiocination the child is led to this conclusion. If it exists, the argument cannot be abstruse because it is obvious to an infant. Hesitation on the part of the philosopher, or the production of a profound argument, gives up the question and demonstrates that it is not reasoning that makes us expect the future to resemble the past and to expect similar effects from superficially similar causes. If he's wrong in this, Hume thinks he must be a very backward scholar, since he cannot now discover an argument which it seems was perfectly familiar to him before he was out of his cradle.

Is Hume Right?

The questioner asks us whether Hume is right in his argument that we have no reason to expect the future to resemble the past. Hume doesn't argue that it is irrational to expect the future to resemble the past. What he does argue is that there is no valid argument that can be adduced either from reason or experience that can prove that it will be. In this, he is surely right.

The weakest point of the argument is that it appears exposed to arguments from the progress of science. This is Hume's suggestion that we know of no necessary connection between what he calls, on the one hand, the "sensible qualities" of things, and, on the

other, their “hidden natures” or “secret powers”; effectively, between the outer qualities of things, and their inner workings, what makes them tick. Because we don’t know these things, we cannot deduce what will happen in the future, whereas if we did know them, we might do. This ignorance may have been true in Hume’s day, but haven’t there been a lot of scientific advances since then that have given us a better understanding of the inner working of things? For instance, why they are the way they are and why they are likely to continue working the way they do?

There are two responses to this. The first is that, for practical purposes, our knowledge of the workings of the solar system is the same as in Hume’s day, yet he claimed that (in common parlance) it was just as conceivable as not that the sun should not rise tomorrow. The second is that, whatever these hidden natures might become known to be, there is no guarantee that they might not change. Of course, all our knowledge of scientific law is based on deduction from past experience, and any assurance of their continued operation in the future is as open to Hume’s arguments as is any other argument from experience.

Hume’s closing “cradle” remarks, while amusing, are only relevant to what we actually do. It shows that we *don’t*, in fact, expect the future to be like the past on the basis of reason. It doesn’t, in itself, demonstrate that we *couldn’t* do this. There is also a tension between the “one-off” learning of the baby and the alleged need for 100’s of trials. This seems to point to a principle of prudence embedded in us due to our evolutionary past. One occurrence of anything very unpleasant is sufficient for us to leave omit the other 99 trials. The occurrence of anything very pleasant induces us to attempt the other 99 in the hope of repetition.

Major Challenges and Alternatives

It is worth considering briefly some other responses to Hume. I will consider two:-

- Self-justification
- Argument to best explanation

(i) Bootstrapping

On the surface, a possible way out of our difficulties is that the expectation of the future resembling the past is self-justifying. This assumption has always worked in the past, so doesn’t this give us warrant to assume that it will work in the future? The answer to this is in two stages. Firstly, it is circular; my reason for believing that P is just P. The counter-argument to this is that the circle is virtuous rather than vicious. Each successful application of the principle increases our commitment to the principle itself. However, and secondly, this form of argument is shown to be fallacious because the same form of argument seems just as cogent if we assume that the future will *not* resemble the past. If I’m tossing a coin and believe the future will resemble the past, each new occurrence of a consecutive head will lead me to expect with increasing certainty that the next toss will yield a head. However, if I believe the future will not resemble the past, then the more

often it *does* resemble the past, the more I'll expect it *not* to at the next trial. If we were due for a tail after eight consecutive heads, we're even more due for one after nine.

(ii) Arguments to the Best Explanation

These arguments say that the data before us is best explained by the future always being like the past; that is, that this is the simplest way of accounting for the data. The future appears to be like the past (that is, when we look back on our expectations of the then future, now past, regularities) because, in point of fact, nature is uniform and the future will be like the past. This seems to look promising until we consider what we mean by the uniformity of nature and the future resembling the past. We then run into the so-called *new problem of induction*, due to Goodman. The basic problem is that, for any set of apparently regular data points, there are infinitely many explanations of that regularity, with infinitely many inconsistent predictions. In addition, for every predicate, such as green, that is projectible – for which it is safe to assume that the future will resemble the past – there is another that is non-projectible, such as grue – for which the future does not resemble the past. The new problem of induction is to say in what sense the future resembles the past, but considering this question is the topic of another essay.

Final Considerations

A final option is to adopt the approach that while we concede that we don't *know* that the future will resemble the past, our best option is to assume it does, because any other supposition leads to chaos or indecision. Assuming the uniformity of nature might be a false assumption, but it's our only hope. We could draw up a payback matrix as below – a bit like Pascal's Wager with the added advantage of receiving a pay-out if you're right.

Assumption \ Facts	Future resembles the past	Future doesn't resemble the past
Assume the future resembles the past	Major gain	No worse than random
Assume the future does not resemble the past	Major loss	No better than random

This approach explains why it is rational to act as if the assumption that the future will resemble the past is true, but is a *vindication* rather than a *justification* of our practices. It doesn't seem to differ from what Hume recommends the rational man to do. As he says, only a fool or a madman would act otherwise.