“Is Hume a sceptic about induction?” This may seem to be a fairly straightforward question, but its appearance is misleading, and the proper response is not to give a direct answer, but instead to move to a more fundamental question which is suggested by Hume himself at the beginning of his definitive discussion of scepticism in Enquiry Section 12: “What is meant by a sceptic?” (E 12.2). His point here is that “sceptic” can mean many things, and what counts as “sceptical” will often depend on the relevant contrast. Someone who is sceptical about morality or the existence of God, for example, need not be sceptical about the external world. And someone who is sceptical about the rational basis of inductive inference need not be sceptical at all – in the sense of dismissive or critical – about the practice itself.

This crucial point about the varieties of scepticism is often overlooked in discussions of Hume on induction, generating a great deal of misunderstanding. Commonly the debate will be framed in terms of a simple contest between “sceptical” and “non-sceptical” interpretations. Then on the one side, a case is made drawing on Hume’s famous negative argument which apparently denies induction any basis in “reason”. Meanwhile, on the other side, appeal is made to the wealth of evidence from Hume’s writings as a whole (including the Treatise, Essays, Enquiries, Dissertations, History, and Dialogues) that evince a clear commitment to induction, and even reveal their author to be a fervent advocate of inductive science. The evidence on each side is then judiciously weighed, and an appropriate conclusion drawn depending on which way the balance falls. But this whole procedure is misdirected, because once we recognise the varieties of scepticism, it becomes clear that these two bodies of evidence are not in conflict.

Hume’s argument concerning induction is indeed a sceptical argument – in the sense of showing that inductive extrapolation from observed to unobserved lacks any independent rational warrant – but this is entirely compatible with his wholehearted endorsement of such extrapolation as the only legitimate method for reaching conclusions about “any matter of fact, which lies beyond the testimony of sense or memory” (E 12.22). The two may initially seem incompatible, but if so, this is because we are taking for granted that a method of inference is

1 The argument appears in Treatise 1.3.6, Abstract 8-16, and Enquiry 4.
to be relied upon only if it can be given an independent rational warrant. And one of the central messages of Hume’s philosophy is that this assumption is itself a rationalist prejudice that we should discard, even though it is shared by both the Cartesian dogmatist and the extreme “Pyrrhonian” sceptic. In the contest between those two extremes, the Pyrrhonist “seems to have ample matter of triumph” while he “justly” urges Hume’s own “sceptical doubts” of Enquiry 4 (the famous argument which is then summarised at E 12.22). However the appropriate response, as Hume himself explains, is not to follow the dogmatist in vainly attempting to challenge the argument that yields these doubts, but rather to ask the Pyrrhonist: “What his meaning is? And what he proposes by all these curious researches?” What, after all, does he really expect us to do in response to this sceptical argument, even if we fully accept it? Is he seriously proposing that we should stop drawing inferences about the unobserved? That would be obviously absurd:

“a Pyrrhonian … must acknowledge, if he will acknowledge any thing, that all human life must perish, were his principles universally and steadily to prevail. All discourse, all action would immediately cease; and men remain in a total lethargy, till the necessities of nature, unsatisfied, put an end to their miserable existence.” (E 12.23)

Theoretically the Pyrrhonist might try to deny any such disastrous consequences, on the ground that if induction is unwarranted, then we have no good reason for supposing that human life will indeed perish in these circumstances. But Hume suggests that even the Pyrrhonist – whatever his theoretical commitments – will be quite unable to insulate himself from such common-sense beliefs: “Nature is always too strong for principle. … the first and most trivial event in life will put to flight all his doubts and scruples, and leave him the same, in every point of action and speculation” with the rest of us.

Hume cannot, of course, prove that putting total scepticism into practice will lead inevitably to disaster, at least not to the satisfaction of the Pyrrhonist who consistently refrains from induction. Nor can he prove that common life will always trump sceptical principle. But if in fact Hume’s inductive conclusions about human psychology are correct, then he does not need to prove these points to any such opponent:

“Nature, by an absolute and uncontrollable necessity has determin’d us to judge as well as to breathe and feel; nor
can we any more forbear [making inductive inferences], than we can hinder ourselves from thinking, as long as we are awake, or seeing the surrounding bodies, when we turn our eyes towards them in broad sunshine. Whoever has taken the pains to refute the cavils of this total scepticism, has really disputed without an antagonist, and endeavour’d by arguments to establish a faculty, which nature has antecedently implanted in the mind, and render’d unavoidable.” (T 1.4.1.7)

So if in fact the sceptic’s doubts will be spontaneously “put to flight” as soon as common life intrudes, then Hume’s point is practically successful even if theoretically unproved. And recall again that Hume himself need not be committed to accepting only what is theoretically provable – that is the very prejudice which he is aiming to undermine.

Hume’s subtle approach to scepticism is made harder to appreciate by the vigour and rhetoric of some of his negative arguments and conclusions (especially in the Treatise, where his ultimate position on scepticism remains relatively obscure), but also, I suspect, by the widespread tradition of approaching scepticism initially through Descartes’ Meditations. Descartes sees the sceptic as an opponent to be refuted outright, through rational argument of such overwhelming force as to be immune to any possible doubt. He thus takes on the onus of providing an ultimate justification of human reason, with any ineradicable doubt telling in favour of his sceptical opponent. Hume succinctly points out the fundamental flaw in this approach immediately after having raised the question “What is meant by a sceptic?” at the beginning of Enquiry Section 12:

“There is a species of scepticism, antecedent to all study and philosophy, which is much inculcated by Des Cartes … It recommends an universal doubt … of our very faculties; of whose veracity … we must assure ourselves, by a chain of reasoning, deduced from some original principle, which cannot possibly be fallacious or deceitful. But neither is there any such original principle, which has a prerogative above others, that are self-evident and convincing: Or if there were, could we advance a step beyond it, but by the use of those very faculties, of which we are supposed to be already diffident. The Cartesian doubt, therefore, were it ever possible to be attained by any human creature (as it plainly is not) would be entirely incurable; and no reasoning could ever bring us to a state of assurance and conviction upon any subject.” (E 12.3)

Such antecedent scepticism is utterly unworkable, because in refusing to trust
our faculties from the start, we are denying ourselves the only tools that could possibly provide any solution. The proper alternative, Hume seems to be saying, is to accord our faculties some initial default authority, and to resort to practical scepticism about them only “consequent to science and enquiry”, in the event that those investigations reveal their “fallaciousness” or “unfitness” (E 12.5). Thus the onus is shifted onto the sceptic to give reasons for mistrusting our faculties, and in the case of induction, that onus is at best only partially fulfilled. Admittedly, “The sceptic … seems to have ample matter of triumph; while he justly insists, that all our evidence for any matter of fact, which lies beyond the testimony of sense or memory, is derived entirely from the relation of cause and effect; that we have no other idea of this relation than that of two objects, which have been frequently conjoined together; that we have no argument to convince us, that objects, which have, in our experience, been frequently conjoined, will likewise, in other instances, be conjoined in the same manner; and that nothing leads us to this inference but custom or a certain instinct of our nature; which it is indeed difficult to resist, but which, like other instincts, may be fallacious and deceitful.” (E 12.22)

But this result gives no practical ba-

2 This is the summary of the Section 4 argument alluded to earlier. Note, however, that the previous clause brings in a point from the Section 7 discussion of the idea of necessary connexion, which does not feature in Section 4 itself.

sis for scepticism. Certainly it raises a ground for theoretical concern, and highlights “the whimsical condition of mankind, who must act and reason and believe; though they are not able, by their most diligent enquiry, to satisfy themselves concerning the foundation of these operations” (E 12.23). But unless we are in the grip of the rationalist prejudice that Hume rejects, we should not see this lack of theoretical satisfaction as sufficient reason to abandon our only respectable method of inference about the unobserved. That would be – as we have seen – to take the sceptical considerations to a ridiculous (and anyway unachievable) extreme. Instead, the appropriate response is less dramatic but far more valuable: to recognise our “whimsical condition” as a ground for modesty about the depth and extent of our powers, and to adopt a “mitigated scepticism” which is correspondingly diffident and cautious (E 12.24), and which confines our attention to the subjects of common life, “avoiding distant and high enquiries”:

“While we cannot give a satisfactory reason, why we believe, after a thousand experiments, that a stone will fall, or fire burn; can we ever satisfy ourselves concerning any determination, which we may form, with regard to the origin of worlds, and the situation of nature, from, and to eternity?” (E 12.25)

This sentence is Hume’s last word on the question of inductive scepticism, and as we have seen, it represents
the conclusion of a coherent line of thought which can be traced from the beginning of *Enquiry* Section 12, his most clear and explicit – and repeatedly refined – treatment of scepticism.

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**RATIONALITY AND EVOLUTION**

By Vangelis Chiotis

The evolution of human societies can be seen as analogous to biological evolution. However, human societies consist of rational individuals who influence social evolution and evolutionary game theory assumes agents of limited rationality. This is the main problem with incorporating evolutionary game theory into a rational choice theory. Also, the traditional rational choice paradigm applies to individuals and evolutionary game theory studies populations. Nevertheless, rationality is seen as utility maximisation and individuals can maximise their utility through interaction within a population in the following ways: 1) learning through a trial and error process and imitating more successful strategies, 2) reflecting on the outcomes of different evolutionary processes and selecting the best based on rational calculations, and 3) selecting to participate in an evolutionary process should it seem to maximise their long-term utility. Therefore, it seems possible to use the evolutionary paradigm without abolishing rationality. The rational animal is an individual and a member of a population at the same time. A realistic account of human behaviour has to examine both a holistic and an individualistic perspective to create a more powerful tool for analysing human behaviour. The rational choice paradigm could be used in an evolutionary context to achieve this.

A rational individual is one who has a consistent order of preferences over a set of alternatives. In addition, the rational individual will always look to maximise her utility. “We do not know what [the rational man] wants... but we know his indifference curves...”

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