1.1 Hume is committed to inductive science

Hume’s overall attitude to induction cannot plausibly be described as “sceptical”, in either the Treatise, the Enquiry, or his other works. For example:

- The subtitle of the Treatise describes it as “An Attempt to introduce the experimental Method of Reasoning into Moral Subjects”.
- Hume argues in both the Treatise and the Enquiry that causal (inductive) inference is our only basis for inference to the unobserved.¹
- Many arguments in the Treatise and in Hume’s other works (e.g. Essays on politics, economics etc.) are – not surprisingly in view of the above – inductive. In particular, “experiments” are mentioned in seven paragraphs of Treatise 1.3.8, thirteen paragraphs of 1.3.12, and sixteen paragraphs of 2.2.2!
- Treatise 1.3.12 develops a theory of “probability of causes”, while 1.3.13 discusses “unphilosophical probability” – thus Hume clearly distinguishes between good and bad inductive inference, which is inconsistent with considering all inductive inference as epistemically worthless.
- In the Treatise Hume gives “rules by which to judge of causes and effects” (T 1.3.15) to guide our discovery of causal relations, and also advises us to search for hidden causes (T 1.3.12.5) – again, such normative guidance of inductive enquiry is inconsistent with thoroughgoing scepticism.
- In the Enquiry, Hume again recommends probable inference and basing probable judgements on past experience: “One, who in our climate, should expect better weather in any week of JUNE than in one of DECEMBER, would reason justly, and conformably to experience … A wise man … proportions his belief to the evidence.” (E 10.4 – see also E 6).
- In the Enquiry Hume recommends searching for general laws (E 4.12) and hidden causes (E 8.13, copied from T 1.3.12.5); reasoning from analogy (E 9.1); and norms of proportionate inference (E 11.12-13). He also gives hints on experimental method (E 9.5 n. 20).

1.2 The Treatise argument is not intended as sceptical

In the Treatise, Hume never describes his treatment of induction as sceptical, and the famous argument of T 1.3.6 appears to be a stage in the quest to identify the impression of necessary connexion, which began at T 1.3.2.11 and finally bears fruit at T 1.3.14.20:

“Shall we … rest contented with these two relations of contiguity and succession, as affording a compleat idea of causation? By no means. An object may be contiguous and prior to another, without being consider’d as its cause. There is a NECESSARY CONNEXION to be taken into consideration” (T 1.3.2.11)

“We must, … beat about all the neighbouring fields, … leave the direct survey of this question concerning the nature of that NECESSARY CONNEXION, which enters into our idea of cause and effect; and endeavour to find some other questions, … which will perhaps afford a hint, that may serve to clear up the present difficulty.” (T 1.3.2.13)

“Tho’ the several resembling instances, which give rise to the idea of power, … can never produce any new quality in the object, which can be the model of that idea, yet the OBSERVATION of this resemblance produces a new impression in the mind, which is its real model. For after we have observ’d the resemblance in a sufficient number of instances, we immediately feel a determination of the mind to pass from one object to its usual attendant, and to conceive it in a stronger light upon account of that relation.

¹ “the only [relation], that can be trac’d beyond our senses, and informs us of existences and objects, which we do not see or feel, is causation” (T 1.3.2.3); “All reasonings concerning matter of fact seem to be founded on the relation of Cause and Effect. By means of that relation alone we can go beyond the evidence of our memory and senses.” (E 4.4).
This determination is the only effect of the resemblance; and therefore must be the same with power or efficacy, whose idea is deriv’d from the resemblance. ... Necessity, then, is the effect of this observation, and is nothing but an internal impression of the mind, or a determination to carry our thoughts from one object to another. Without considering it in this view, we can never arrive at the most distant notion of it, or be able to attribute it either to ... causes or effects.” (T 1.3.14.20)

The role of T 1.3.6-7 is to identify constant conjunction and customary inference as key, having excluded “reason” as a potential ground of inference:

“Thus in advancing we have insensibly discover’d a new relation betwixt cause and effect, when we least expected it, and were entirely employ’d upon another subject. This relation is their constant conjunction.” (T 1.3.6.3).

“When ev’ry individual of any species of objects is found by experience to be constantly united with an individual of another species, the appearance of any new individual of either species naturally conveys the thought to its usual attendant.” (T 1.3.6.14).

“Reason can never satisfy us that the existence of any one object does ever imply that of another; so that when we pass from the impression of one to the idea or belief of another, we are not determined by reason, but by custom or a principle of association.” (T 1.3.7.6).

1.3 Later hints of scepticism in the Treatise

At T 1.3.12.20, while urging acceptance of his “abstruse” theory of the “probability of causes”, Hume seems to acknowledge the potential sceptical significance of T 1.3.6:

“Let men be once fully perswaded of these two principles, That there is nothing in any object, consider’d in itself, which can afford us a reason for drawing a conclusion beyond it; and, That even after the observation of the frequent or constant conjunction of objects, we have no reason to draw any inference concerning any object beyond those of which we have had experience; I say, let men be once fully convinc’d of these two principles, and this will throw them so loose from all common systems, that they will make no difficulty of receiving any, which may appear the most extraordinary.” (T 1.3.12.20)

In the Conclusion of Book 1, the dependence of induction on custom and the enlivening of ideas is the first (but by no means the most serious) sceptical concern that Hume raises:

“After the most accurate and exact of my reasonings, I can give no reason why I shou’d assent to it; and feel nothing but a strong propensity to consider objects strongly in that view, under which they appear to me. Experience is a principle, which instructs me in the several conjunctions of objects for the past. Habit is another principle, which determines me to expect the same for the future; and both of them conspiring to operate upon the imagination, make me form certain ideas in a more intense and lively manner, than others, which are not attended with the same advantages. Without this quality, by which the mind enlivens some ideas beyond others (which seemingly is so trivial, and so little founded on reason) we cou’d never assent to any argument, nor carry our view beyond those few objects, which are present to our senses.” (T 1.4.7.3)

1.4 The Enquiry argument is sceptical, but ...

In the Enquiry, Hume’s chapter on induction is entitled “Sceptical doubts concerning the operations of the understanding”. Moreover the argument proceeds by first, identifying extrapolation from observed to unobserved (often called the Uniformity Principle) as essential for inference to the unobserved (E 4.16); and then showing that this cannot be supported by intuition, sensation, demonstration, or probable argument. This seems to be clearly sceptical in approach.

“These two propositions are far from being the same, I have found that such an object has always been attended with such an effect, and I foresee, that other objects, which are, in appearance, similar, will be attended with similar effects. ... The connexion between these propositions is not intuitive. There is
required a medium, which may enable the mind to draw such an inference, if indeed it be drawn by reasoning and argument.” (E 4.16)

“It is allowed on all hands, that there is no known connexion between the sensible qualities and the secret powers; and consequently, that the mind is not led to form such a conclusion concerning their constant and regular conjunction, by any thing which it knows of their nature.” (E 4.16)

“That there are no demonstrative arguments in the case, seems evident; since it implies no contradiction, that the course of nature may change” (E 4.18)

“all our experimental conclusions proceed upon the supposition, that the future will be conformable to the past. To endeavour, therefore, the proof of this last supposition by probable arguments ... must be evidently going in a circle, and taking that for granted, which is the very point in question.” (E 4.19)

In the final section of the *Enquiry*, Hume’s argument from Section 4 is put into the mouth of the sceptic:

“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 those 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. While the sceptic insists upon these topics, he shews his force, or rather, indeed, his own and our weakness; and seems, for the time at least, to destroy all assurance and conviction.” (E 12.22)

### 1.5 ... in the *Enquiry*, Hume explicitly answers the sceptic

Having put his own argument into the mouth of the sceptic (as above), Hume then gives an answer which appears (to me, at any rate), to be quite persuasive:

“For here is the chief and most confounding objection to excessive scepticism, that no durable good can ever result from it; while it remains in its full force and vigour. We need only ask such a skeptic, What his meaning is? And what he proposes by all these curious researches? ... a PYRRHONIAN cannot expect, that his philosophy will have any constant influence on the mind: Or if it had, that its influence would be beneficial to society. On the contrary, he 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. ... all his objections ... can have no other tendency than to show 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, or to remove the objections, which may be raised against them.” (E 12.23)

This can usefully be read in conjunction with an important paragraph much earlier in Section 12, where Hume rejects what he calls extreme *antecedent* scepticism:

“There is a species of scepticism, antecedent to all study and philosophy, which is much inculcated by Des Cartes and others, as a sovereign preservative against error and precipitate judgment. It recommends an universal doubt, not only of all our former opinions and principles, but also of our very faculties; of whose veracity, say they, 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 proficient. The Cartesian doubt, therefore, were it ever possible to be attained by any human creature (as

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2 For a full explanation of what I take this answer to be, see §1 of my “Hume’s ‘Scepticism’ about Induction” (2012).
Instead of attempting this hopeless task of justifying our faculties \textit{a priori} (when obviously any justification can only be done using those very faculties), Hume seems to be suggesting here that we should be prepared initially to give \textit{default} authority to our faculties, and adopt a “\textit{consequent}” sceptical position only if, and when, we discover by experience “either the absolute fallaciousness of [our] mental faculties, or their unfitness to reach any fixed determination” (\textit{E} 12.5). In the case of induction, the recognition of our “whimsical condition” – whereby we “must act and reason and believe” without being able to give a fundamental justification of our assumption that the future will resemble the past – does not constitute such a worrying discovery. It may indeed raise a \textit{theoretical sceptical worry}, but it gives no practical basis for \textit{rejecting} our default reliance on induction, especially when we are convinced “that all human life must perish” were the sceptic’s “principles universally and steadily to prevail”. We stand to lose everything by following the sceptic, who cannot reasonably (on his own principles) assure us of any benefit if we do so.

\subsection*{1.6 Explaining Hume’s attitude to induction}

In view of the above, it is far easier to explain Hume’s attitude to induction based on the \textit{Enquiry} than on the \textit{Treatise} – he says so much more about it there, and explicitly faces up to the sceptical concerns. It also seems plausible that his overall attitude to induction is largely the same in both works – for there is little to indicate a serious change in view – so it is justifiable, even if discussing induction with primary reference to the \textit{Treatise}, to appeal to the \textit{Enquiry} for clarification.\footnote{Miriam McCormick, “A Change in Manner: Hume’s Scepticism in the \textit{Treatise} and the first \textit{Enquiry}” (\textit{Canadian Journal of Philosophy} 29 (1999), pp. 431-47) does not specifically discuss Hume on induction, but argues that the overall sceptical attitude of \textit{Treatise} Book 1 Part 4 is (despite some appearances to the contrary) virtually identical to the “mitigated scepticism” (\textit{E} 12.24) which is expressed much more clearly in the \textit{Enquiry}. This claim is far less plausible, however, with regard to Hume’s “scepticism with regard to reason” of \textit{Treatise} 1.4.1, which looks very distant from the mitigated scepticism of the \textit{Enquiry}.}