

Adam Smith's Humean Attitude About Science: Illustrated by "The History of Astronomy"

Erik W. Matson
Department of Economics
George Mason University
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Introduction

- I examine parallels between Smith and Hume's attitude about science/philosophy in Smith's "History of Astronomy" (HA).
- Recent scholarship: Smith and Hume have different attitudes.
 - Schliesser (2005; 2010) and Berry (2006): Smith is a moderate realist. Kim (2012): Smith is a critical realist.
- My thesis: Smith's a Humean naturalist.
 - I read HA as a rhetorical exercise in Humean naturalist epistemology.

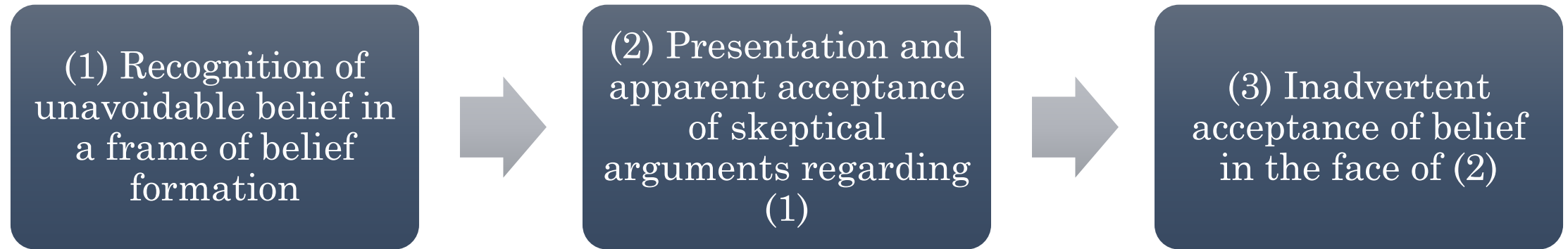
What is Humean naturalism?

- The mind's pragmatic (and unavoidable) acceptance of its faith-like belief in a more general frame of belief formation. (NOT scientism)
- The two pillars of belief formation: (1) belief in the external existence of objects and (2) belief in the causal connection of external objects.
- *Acceptance of the general frame of belief formation is a matter of feeling, not ratiocination.*
- Humans are believing beings by nature
- Not a subversion of common understanding, simply reorganizing philosophical discourse.

Humean naturalism has concomitant skepticism

- The unverifiable nature of our interaction with the external world leads to skepticism.
- We move forward, and reason positively and responsibly.
- But: “In all the incidents of life we ought still to preserve our scepticism...Nay if we are philosophers, it ought only to be upon sceptical principles, and from an inclination which we feel to the employing ourselves after that manner” (T 1.4.7.11)
- Ethos of Humean science/philosophy: limit your pretense of knowledge and proceed agreeably and moderately, candidly use ignorance as a *strength*.

Smith's HA is a three-phase rhetorical demonstration of the pragmatic, Humean naturalist outlook

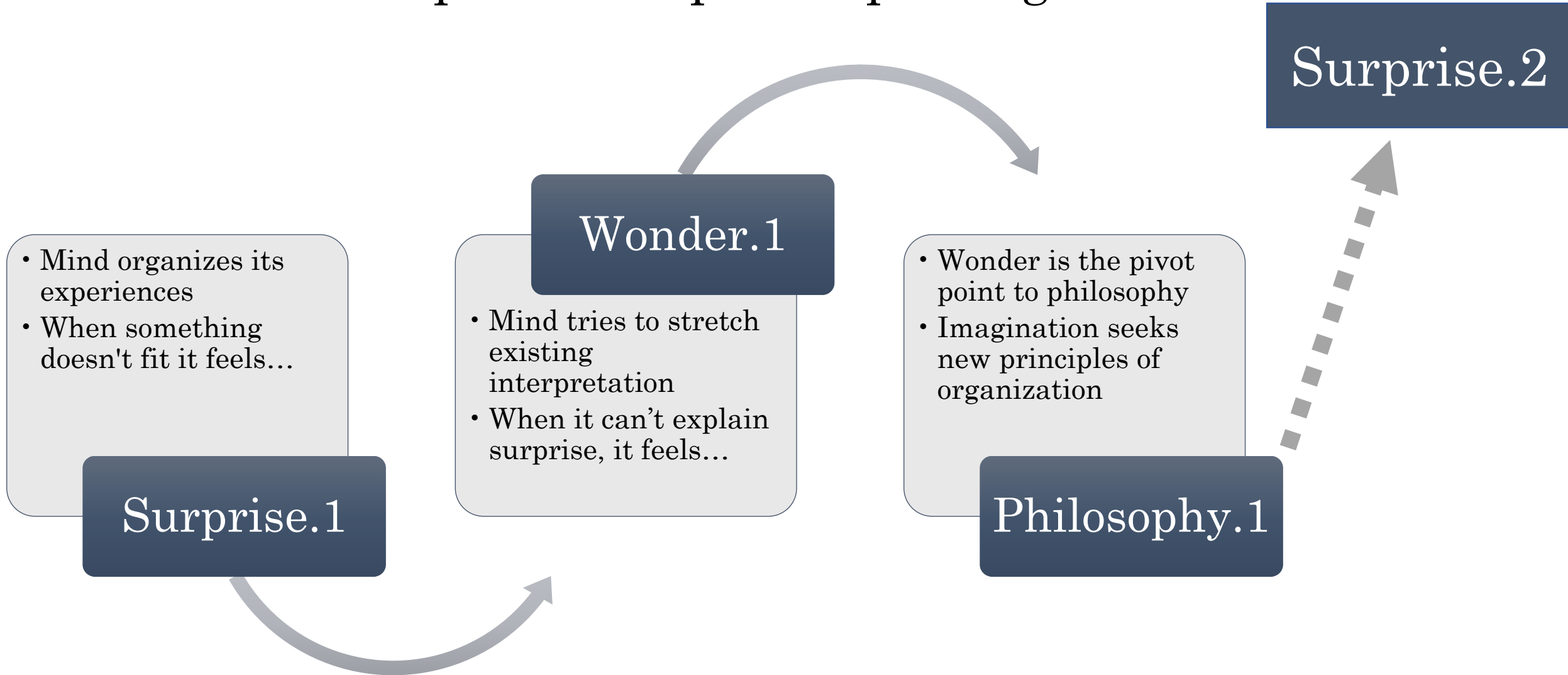


Smith's *a fortiori* argument: **If belief in belief-formation/science ascends even in an investigation the propriety of such belief, then it should be expected to operate more universally.**

Phase 1: the sentimental and psychological basis of inquiry (HA 1-3)

- In HA, Smith proposes to examine the psychological tendencies which lead to philosophy and to illustrate how such tendencies play out in the history of philosophy.
 - Recall the full title of HA.
- Folds inquiry into sentimental framework that constitutes reason
 - Mind unavoidably leans on natural frame of belief formation that it cannot verify.
- The central principle: regularity is agreeable, mind is moved to induction and abduction from experience to construct interpretive framework.

The iterative process of philosophizing



An example from the text

- [The new fossil] stands alone in his imagination, and as it were detached from all the other species of that genus to which it belongs. He labours, however, to connect it with some one or other of them...When he cannot do this, rather than it should stand quite by himself, he will enlarge the precincts, if I may say so, of some species in order to make room for it; or he will create a new species on purpose to receive it, and call it a Play of Nature, or give it some other appellation, under which he arranges all the oddities that he knows not else what to do with. (HA 2.5)

A statement of Smith's philosophical outlook

- “Philosophy is the science of connecting the principles of nature...Philosophy...introduces into this chaos of jarring and discordant appearances, to allay this tumult of the imagination [caused by surprise and subsequently wonder] and restore it...to that tone of tranquility and composure, which is most agreeable in itself, and most suitable to its nature. Philosophy, therefore, may be regarded as one of those arts which address themselves to the imagination” (HA 2.12)

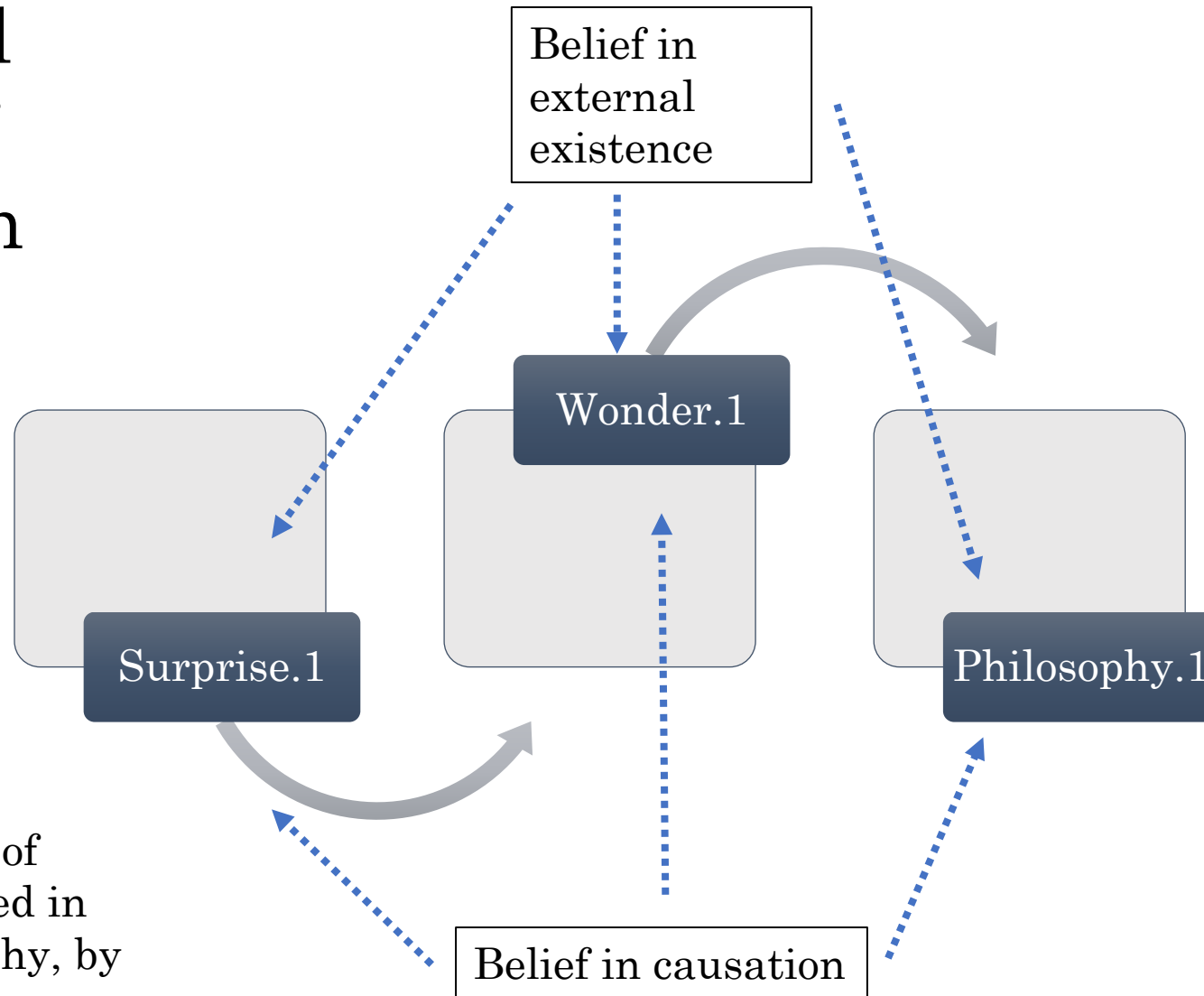
Three things about Smith's definition of philosophy that tie him to Humean naturalism

- 1) The admission that the mind naturally, unavoidable inclines to a belief in regularity of the universe.
- 2) Smith admits such regularity to be *propositional*.
 - 1) Scientific explanations are internal, “with us”, as it were.
 - 2) Imagination as ductile, sentimental, and readily adaptable
- 3) Philosophy is pragmatic, not axiomatic
 - 1) Scientific explanation is framed in terms of better/worse
 - 2) Hume: “No philosopher, who is rational and modest, has ever pretended to assign the ultimate cause of any natural operation” (EHU 4.1.12)

Smith on the Humean framework of belief

- In Hume, the pillars of belief and scientific explanation are two presuppositions: external existence of objects and causal connection between such objects.
- Smith adopts Hume's position with regard to these pillars.
- Smith understands these pillars are necessarily *presupposed* in the iterative process of philosophical/scientific explanation.

The mental universe of explanation



The Humean pillars of belief are presupposed in each step of philosophy, by Smith's account

Smith on the belief in external existence

- Smith doesn't talk about external existence in HA directly, but does in another essay, "Of the External Senses"
- He claims that belief in independent existence of objects proceeds and "cannot in the smallest degree be affected by [various systems of philosophy]" (OES 140.18)
- Such belief is part of human nature, the mind tends towards belief in external existence by constitution

Smith on Humean causation

- See Skinner (1974); Raphael (1979)
- Belief in causation underscores conviction that nature proceeds regularly
- Smith corroborates a Humean conception of causation in HA and OES.
- “When two objects, however unlike, have often been observed to follow each other, and have constantly presented themselves to the senses in that order, they come to be so connected together in the fancy, that the idea of the one seems, of its own accord, to call up and introduce that of the other” (HA 2.7)

Summarizing Phase 1

- The mind interacts with the universe sentimentally.
- Philosophy is an ongoing process driven by the sentiments of surprise and wonder.
- Belief in externally existing objects and the causal connectedness of those objects – i.e., the regularity of the universe – underscores the entire enterprise.
- Smith shows himself to be squarely in line with Hume's naturalist epistemology.
- The mind enquires sentimentally, within an unverifiable frame of belief formation.

Phase 2: Presentation of skeptical arguments

- Again, Hume's peculiar sort of naturalism implies a certain kind of skepticism.
- It is a non-dogmatic skepticism: we might be *skeptical* about skepticism, as Hume suggests in his *Treatise*.
 - Primary implications of such skepticism is manner/method of philosophy
- Smith and Hume's non-dogmatic skepticism stems from conceiving of difficulties in moving from the individual to the universal, from perception to broader claims about the universe.
- The object of skepticism is final interpretations, ultimate causes

Evidence of Smith's Humean skepticism with regard to final interpretations in HA

- 1) The universe is perception: logical problems with the pillars of natural belief and the status of science
- 2) Conscious avoidance of truth-talk and broad causal claims: importance of epistemic/pragmatic virtue, i.e. aesthetics, in science
- 3) Conventional view of science formulated in familiar principles
- 4) Sociological understanding of inquiry: lasting inertia of “normal science”; science as deepest-to-date
- 5) Sentimental and historical framing of reason
 - 1) Ineluctable confirmatory bias, so-called prejudice of the senses

Phase 3: Smith's slide to truth-talk

- The progression of Section 4 of HA seems at odds with the first three sections.
- Despite Phase 1 and 2, Smith slides into a sort of truth-talk regarding Newtonian Copernicanism
- He goes so far as to say that the Newtonian system has been proved (HA 4.73)
- His apparent attitude: “the pagans got it wrong, Aristotle and Ptolemy got it wrong, but we have it right”
- Such attitude pushes against the Humean epistemology canvassed in the early parts of HA.

Two (of many) possible explanations of the seeming contradiction

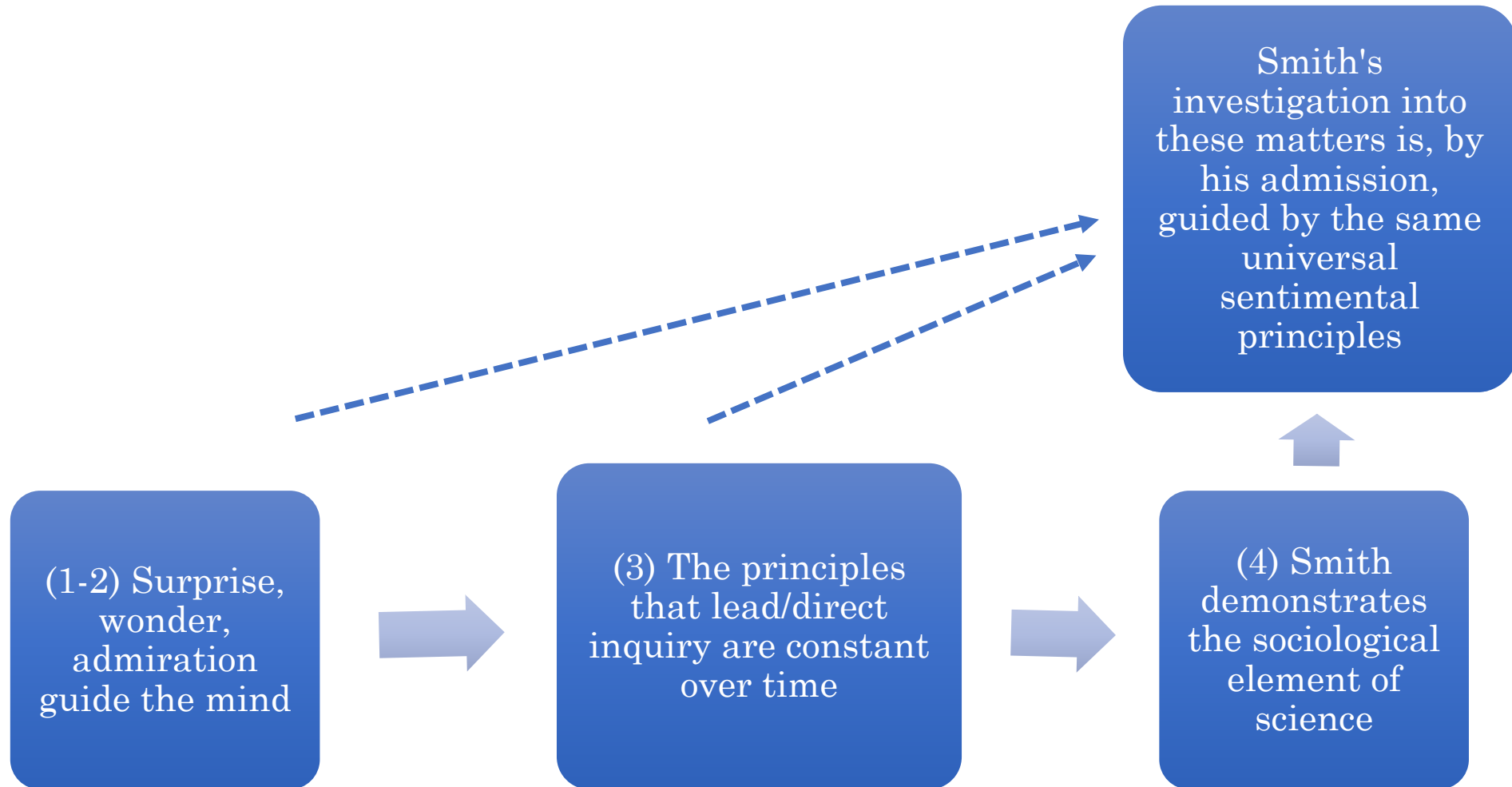
- 1) There is no contradiction; Smith's epistemology must actually be different from Hume's, closer to a moderate sort of realism.
- 2) The contradiction is part of Smith's broader program in HA, namely to illustrate the process of doing science/philosophy. His point: there is an inevitable slide to truth-talk, a moderate 'realism', as it were.

Again, Smith's *a fortiori* argument: If belief in belief-formation/science ascends even in an investigation the propriety of such belief, then it should be expected to operate more universally.

Strategic structure of HA

- Section 1 treats the sentiment of surprise and its effect on the mind.
- Section 2 treats the sentiment of wonder and its effect on the mind.
- Section 3 treats the universal operation of these sentiments in different historical contexts.
- Section 4 presents a history of the science of astronomy as an illustration of the principles in Sections 1-3.
- On a deeper level, Smith demonstrates the universality of the principles in Sections 1-3 by candidly admitting to their effect on *his* thinking on the history of astronomy.

Strategic structure of HA



Smith's candid admission of his program

- “And even we, while we have been endeavouring to represent all philosophical systems as mere inventions of the imagination, to connect together the otherwise disjointed and discordant phaenomena of nature, have insensibly been drawn in, to make use of language expressing the connecting principles of this one, as if they were the real chains which Nature makes use of to bind her several operations” (HA 4.76)

Conclusion

- The end of Smith's essay is *surprising*.
- Smith pulls the reader along into his slide to truth-talk. He abruptly calls attention to the inadvertent slide, calling us to reconsider our interpretation and classification of his essay and *our own interpretations*.
- One of Smith's points: to limit the pretense of finality in our interpretations, foster open-mindedness, and endorse useful and agreeable inquiry.