

Hume Lecture Notes

Hume (1711-76)

Edinburgh, Scottish Enlightenment

Contemporary and close friend of Adam Smith

Published *A Treatise of Human Nature* at age 23

Caused charges of atheism that stuck his entire life, precluding university appointment

This in spite of his removing most inflammatory sections

Recast the *Treatise* into

Enquiry concerning Human Nature (1748)

Enquiry concerning the Principles of Morals (1751)

Motivation for the project:

Criticism of previous philosophers:

“Here indeed lies the justest and most plausible objection against a considerable part of metaphysics, that they are not properly a science; but arise either from the fruitless efforts of human vanity, which would penetrate into subjects utterly inaccessible to the understanding, or from the craft of popular superstitions, which, being unable to defend themselves on fair ground, raise these intangling brambles to cover and protect their weakness.” (5)

Target here is Aristotle’s picture of scientific explanation:

1. Start with intuitively obvious premises known independent of experience
2. Prove that causal relations exist

Hume: how can we know those premises independent of experience? And haven’t many of Aristotle’s examples proved false?

Solution:

“The only method of freeing learning, at once, from these abstruse questions, is to enquire seriously into the nature of human understanding, and show, from an exact analysis of its powers and capacity, that it is by no means fitted for such remote and abstruse subjects.” (6)

To avoid doing that we must figure out how the human understanding works, what its limits are. Then we can stay within those limits:

Hume takes Newton as his model:

“Astronomers had long contented themselves with proving, from the phaenomena, the true motions, order, and magnitude of the heavenly bodies: Till a philosopher, at last, arose, who seems, from the happiest reasoning, to have also determined the laws and forces, by which the revolutions of the planets are governed and directed. The like has been performed with regard to other parts of nature. And there is no reason to despair of equal success in our enquiries concerning the mental powers and economy, if prosecuted with equal capacity and caution.”

Prior astronomers merely described locations and orbits of planets.

Newton provided a theory that accurately predicted those locations and orbits: gravity.

Hume’s theory of mind:

Hume accept the same **indirect realism** as Descartes

All experience is understood as a kind of **perception**: the entertaining of ideas in the mind

Two types of perceptions: impressions vs ideas

Impressions are sense experiences

2 types:

External: normal sense experience

Internal: experience of our own thoughts, emotions (e.g. anger)

Ideas: concepts of thought

How to tell the difference between ideas and impressions?

Impressions are more 'forceful and vivacious'

Where do ideas come from?

"...though our thought seems to possess this unbounded liberty, we shall find, upon a nearer examination, that it is really confined within very narrow limits, and that all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience. When we think of a golden mountain, we only join two consistent ideas, gold, and mountain, with which we were formerly acquainted. A virtuous horse we can conceive; because, from our own feeling, we can conceive virtue; and this we may unite to the figure and shape of a horse, which is an animal familiar to us. In short, all the materials of thinking are derived either from our outward or inward sentiment: the mixture and composition of these belongs alone to the mind and will. Or, to express myself in philosophical language, **all our ideas or more feeble perceptions are copies of our impressions or more lively ones.**" (11)

Copy principle: all ideas are copies of impressions

In Descartes's language, Hume is claiming that all ideas are either:

- adventitious (like 'gold' or 'mountain')
- or fabricated (like 'golden mountain')
- no innate ideas

2 arguments for Copy Principle:

1. "If it happen, from a defect of the organ, that a man is not susceptible of any species of sensation, we always find that he is as little susceptible of the correspondent ideas. A blind man can form no notion of colours; a deaf man of sounds. Restore either of them that sense in which he is deficient; by opening this new inlet for his sensations, you also open an inlet for the ideas; and he finds no difficulty in conceiving these objects." (12)

2. "...when we analyze our thoughts or ideas, however compounded or sublime, we always find that they resolve themselves into such simple ideas as were copied from a precedent feeling or sentiment. Even those ideas, which, at first view, seem the most wide of this origin, are found, upon a nearer scrutiny, to be derived from it. The idea of God, as meaning an infinitely intelligent, wise, and good Being, arises from reflecting on the operations of our own mind, and augmenting, without limit, those qualities of goodness and wisdom."

Hume goes on to tell us how to test this claim:

"We may prosecute this enquiry to what length we please; where we shall always find, that every idea which we examine is copied from a similar impression. Those who would assert that this position is not universally true nor without exception, have only one, and that an easy method of refuting it; by producing that idea, which, in their opinion, is not derived from this source. It will then be incumbent on us, if we would maintain our doctrine, to produce the impression, or lively perception, which corresponds to it." (11)

Hume's claim is a universal generalization: all ideas come from experience.

Disproving that claim requires only a single counterexample.

Then Hume provides a counterexample:

Missing shade of blue example:

Suppose, therefore, a person to have enjoyed his sight for thirty years, and to have become perfectly acquainted with colours of all kinds except one particular shade of blue, for instance, which it never has been his fortune to meet with. Let all the different shades of that colour, except that single one, be placed before him, descending gradually from the deepest to the lightest; it is plain that he will perceive a blank, where that shade is wanting, and will be sensible that there is a greater distance in that place between the contiguous colours than in any other. Now I ask, whether it be possible for him, from his own imagination, to supply this deficiency, and raise up to himself the idea of that particular shade, though it had never been conveyed to him by his senses? I believe there are few but will be of opinion that he can: and this may serve as a proof that the simple ideas are not always, in every instance, derived from the correspondent impressions; though this instance is so singular, that it is scarcely worth our observing, and does not merit that for it alone we should alter our general maxim. (12-3)

!?!?

Hume's motivation is to identify and avoid metaphysical nonsense

His theory of mind, especially the Copy Principle, gives him a method for identifying it:

When we entertain, therefore, any suspicion that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but enquire, from what impression is that supposed idea derived? And if it be impossible to assign any, this will serve to confirm our suspicion. (13)

At end of Section II, we have the origins of the contents of ideas, and a test for nonsense ideas.

Further observation: some ideas are connected:

When we think, or imagine, the succession of ideas isn't totally random

Example: we've been talking about perceptions, and impressions, and ideas, and nonsense. These are related.

Question: how do ideas become connected to one another in our minds?

Three Principles of connection:

1. Resemblance
 - a. Photo of my brother makes me think of my father b/c they resemble one another
2. Contiguity
 - a. Contiguity in time
 - i. MC Hammer pants make me think of middle school
 - b. Contiguity in space
 - i. Thinking about the Eiffel Tower makes me think of the Arch de Triumph
3. Cause and effect
 - a. I see someone injured and I think about the pain of the injury

The relation of cause and effect is especially important: we'll see it again

Section IV: Hume on Induction

Background picture:

Hume: all ideas are copied from experience. Our minds can recombine ideas in our minds (e.g. *golden mountain*, *virtuous horse*).

We can then know propositions about our recombined ideas, e.g. all golden mountains are golden, all virtuous horses are horses, etc.

Propositions we know in this way he calls *relations of ideas*:

Relations of Ideas are:

- a priori (known independently of experience)
- truth does not depend what the extra-mental universe is like
 - o These are all facts about ideas, not facts about the mind-independent world
- Necessary (not contingent)
 - o The negation of a *contingent* truth is false, but it's not impossible
 - example: if 'Sue likes basketball' is contingently true, then 'It's not the case that Sue likes basketball' is false. But it's not a contradiction.
 - o The negation of a necessary truth is a contradiction: its truth is impossible
 - example: 'all red socks are red' is necessarily true, and 'its not the case that all red socks are red' isn't just false, its a contradiction whose truth is impossible
- Reasoning about relations of ideas is deductive: Hume calls is **demonstrative reasoning**

In contrast, sometimes we seek knowledge of objects distinct from our ideas: knowledge of the existence of an object, or of its properties.

Propositions like these are call *matters of fact*.

Matters of Fact:

- a posteriori
- truth depends on correspondence between idea and what the world is like
- Contingent propositions: negation is possible
- Reasoning about matters of fact is **moral reasoning** (the use of 'moral' here archaic: it has nothing to do with ethics)

Hume's focus in Section IV is on the possibility of knowledge of matters of fact.

Facts about what's going on with our senses are matters of facts, and our epistemic access to those facts is unproblematic.

Question 1: why believe any matter of fact that goes beyond immediate experiences, perceptual, introspective, and memorial? Why believe in the existence of any object independent of our experiences, or in the properties of such objects?

Answer: All knowledge of matters of facts is founded on knowledge of cause and effect

“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. If you were to ask a man, why he believes any matter of fact, which is absent; for instance, that his friend is in the country, or in France; he would give you a reason; and this reason would be some other fact; as a letter received from him, or the knowledge of his former resolutions and promises. A man finding a watch or any other machine in a desert island, would conclude that there had once been men in that island. All our reasonings concerning fact are of the same nature. And here it is constantly supposed that there is a connexion between the present fact and that which is inferred from it. Were there nothing to bind them together, the inference would be entirely precarious. The hearing of an articulate voice and rational discourse in the dark assures us of the presence of some person: Why? because these are the effects of the human make and fabric, and closely connected with it. If we anatomize all the other reasonings of this nature, we shall find that they are founded on the relation of cause and effect, and that this relation is either near or remote, direct or collateral. Heat and light are collateral effects of fire, and the one effect may justly be inferred from the other.” (19)

So any knowledge that goes beyond immediate experience requires knowledge of causal relations.

Question 2: How do we obtain knowledge of causal relations?

Answer:

- They're not known a priori: we can imagine lots of different effects for a given cause
- Plus, in particular cases it's obvious that we don't know what the effect of a cause will be: Adam didn't know that water would drown him until he tried to breathe under water, and he didn't know that bread would nourish him until he ate some
- So, if we know about cause and effect at all it must be a posteriori: from experience

Problem: How exactly does experience provide knowledge of causal relations?

- Causal relations are not observed directly
 - o When we observe fire causing smoke, our experience is just: fire, together with smoke
- So, if my knowledge is a posteriori, then my knowledge that *fire causes smoke* must involve an *inference* from what I actually observe:

“At least, it must be acknowledged that there is here a consequence drawn by the mind; that there is a certain step taken; a process of thought, and an inference, which wants to be explained. 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. I shall allow, if you please, that the one proposition may justly be inferred from the other: I know, in fact, that it always is inferred. But if you insist that the inference is made by a chain of reasoning, I desire you to produce that reasoning. 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. What that medium is, I must confess, passes my comprehension; and it is incumbent on those to produce it, who assert that it really exists, and is the origin of all our conclusions concerning matter of fact.”
(25)

Big problem: there are only two kinds of inference, and neither is suitable to the task:

1. All reasoning is either demonstrative reasoning (a priori, concerning relations of ideas) or moral reasoning (a posteriori, concerning matters of fact). So, all reasoning *extrapolating from experience to arrive at knowledge of causal relations* is either demonstrative or moral
2. It's not demonstrative:
 - a. All demonstrative reasoning results in necessary truths

- b. Extrapolating from experience doesn't result in necessary truths: The negation of a true statement of a causal relation is not a contradiction
- 3. It's not moral reasoning
 - a. 'We have said, that all arguments concerning existence are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all experimental conclusions proceed upon the supposition, that the future will be conformable to the past. To endeavor, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence must be evidently going in a circle, and taking that for granted, which is the very point in question' (23)

What's this 'future conformable to the past' supposition? From earlier:

'As to past experience, it can be allowed to give direct and certain information of those precise objects only, and that precise period of time, which fell under its cognizance; but why this experience should be extended to future times, and to other objects, which for aught we know, may be only in appearance similar, this is the main question on which I would insist. [example:] The bread, which I formerly eat, nourished me; that is, a body of such sensible qualities, was, at that time, endued with such secret powers [of nourishing me]: but why this experience should be extended to future times, and to other objects, which for aught we know, may be only in appearance similar; this is the main question on which I would insist.' (21)

- We often observe things going together: smoke/ fire, eating bread/ feeling full, flip the switch/ the light comes on
- After lots of experiences eating bread, I can *deduce* 'in the past, every time I ate bread, it nourished me'
- If I also knew that the future would resemble the past, then I could reason *demonstratively* as follows:
 1. in the past, every time I ate bread, it nourished me
 2. the future will resemble the past
 3. so, in the future when I eat bread it will nourish me
- i.e., I can now extrapolate from past experience of bread eating to learn about the causal powers of bread

But how can we know that the future will resemble the past

- it's not demonstrative: negation is not a contradiction
- it's not moral: that would be:
 1. in the past, the future has always resembled the past
 2. the future will resemble the past
 3. so, the future will resemble the past

But that's blatantly circular/ question-begging

Big point put simply:

- reasoning beyond our immediate sense experience is always moral reasoning
- the only way to justify moral reasoning is by appeal to moral reasoning itself
- so, moral reasoning is not justified
- so, our beliefs about matters of fact that go beyond our immediate experience are not justified

Abstracting Hume's argument:

Hume thinks that all knowledge based on experience is a MOF, and that the argument shows that knowledge of MOF that goes beyond experience is impossible.

Hence argument depends in some form on his indirect realism

Argument doesn't require that.

Suppose I *know* that 1000 copper samples all conduct electricity, none fail to conduct electricity.

- Not a fact about my own experiences, not superficial quality of copper samples, substantive fact about them: they conduct electricity

How can I know that all copper conducts electricity?

The truth of premises is consistent with false conclusion, so can't be ROI

Suppose I knew that the future would resemble the past: all future copper will be like all past copper - it will conduct electricity - so conclusion is true

But I don't know that the future will resemble the past: it's not necessary, and I can't reason to it non-circularly

So, I don't know that all copper conducts electricity

Arguments that depend upon indirect realism mostly just bother Philosophers

The generalized argument should bother everyone

- Electricians who want to wire a house with copper wire:

- will *this* copper I'm installing in the house conduct electricity?
- Scientists who conclude that all carbon molecules in the atmosphere trap heat and cause global warming:
 - will the carbon dioxide emitted by burning *this* lump of coal contribute to global warming, or is this carbon dioxide different?
- You, when you're deciding whether to bite down on your Lucky Charms
 - Will this bite taste sweet and fill me up, or will it explode the moment I bite down, killing me?

Hume's abstraction of the argument (from his earlier *Treatise of Human Nature*)

New question: why think that my present experiences tell me anything true about a mind-independent world?

Hume accepts the same indirect realist picture that Locke and Descartes accepts:

- The immediate objects of perception are ideas in the mind
- Perceptual experiences are accurate when the ideas in the mind are appropriately correlated to the state of the world
 - Example: I have an experience as of an orange chair
 - I'm not directly experiencing a chair, I'm experiencing ideas in my mind: *orange* and *chair*
 - My experience is accurate iff there really is an orange chair out in the world that's appropriately causally related to my experience
- Epistemically speaking, experiences provide immediate knowledge/ rational belief about the experiences themselves, not things in the world; that *further* knowledge is inferred
 - Continuing the example:
 - My experience provides me with knowledge that *I'm having an experience as of an orange chair*
 - In order to know that the chair is orange - in order to know a fact about a thing in the world - I must draw that inference from what I do know: the fact about my experience
- But what kind of reasoning takes me from facts about my own experiences to facts about the world? Moral reasoning/ inductive reasoning.
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Hume's positive project:

Long quote:

Suppose a person, though endowed with the strongest faculties of reason and reflection, to be brought on a sudden into this world; he would, indeed, immediately observe a continual succession of objects, and one event following another; but he would not be able to discover anything farther. He would not, at first, by any reasoning, be able to reach the idea of cause and effect; since the particular powers, by which all natural operations are performed, never appear to the senses; nor is it reasonable to conclude, merely because one event, in one instance, precedes another, that therefore the one is the cause, the other the effect. Their conjunction may be arbitrary and casual. There may be no reason to infer the existence of one from the appearance of the other. And in a word, such a person, without more experience, could never employ his conjecture or reasoning concerning any matter of fact, or be assured of anything beyond what was immediately present to his memory and senses.

Suppose, again, that he has acquired more experience, and has lived so long in the world as to have observed familiar objects or events to be constantly conjoined together; what is the consequence of this experience? He immediately infers the existence of one object from the appearance of the other. Yet he has not, by all his experience, acquired any idea or knowledge of the secret power by which the one object produces the other; nor is it, by any process of reasoning, he is engaged to draw this inference. But still he finds himself determined to draw it: And though he should be convinced that his understanding has no part in the operation, he would nevertheless continue in the same course of thinking. There is some other principle which determines him to form such a conclusion.

This principle is Custom or Habit. (30-31)

Important: he's here proposing that inductive inference is supported by a 'principle of human nature'

This is a *psychological thesis*: when people experience the constant conjunction of fire and smoke, they form the habit of expecting to see smoke whenever they see fire

Just because we have that habit, that doesn't mean that the habit is rational, i.e. that inductive inferences produce knowledge or justified belief

Started out thinking that inductive inferences required support by reason in order to be rational, but we don't have that.

Hence this is a skeptical solution only: it explains why we make inductive inferences, but doesn't explain why it's rational to make them

So are they *irrational*?

Rational vs irrational vs non-rational

Lots of things we do habitually are non-rational:

- Some are completely automatic: blink our eyes, digest our food
- Some are learned: athlete who swings her bat just-so, musician who improvises without thinking

Presumably, the making of inductive inferences is not subject to rational evaluation any more than the digestion of food, and neither are the beliefs that you form using those inferences.

But, it's a very good thing that we have this custom:

“Here, then, is a kind of pre-established harmony between the course of nature and the succession of our ideas; and though the powers and forces, by which the former is governed, be wholly unknown to us; yet our thoughts and conceptions have still, we find, gone on in the same train with the other works of nature. Custom is that principle, by which this correspondence has been effected; so necessary to the subsistence of our species, and the regulation of our conduct, in every circumstance and occurrence of human life. Had not the presence of an object, instantly excited the idea of those objects, commonly conjoined with it, all our knowledge must have been limited to the narrow sphere of our memory and senses; and we should never have been able to adjust means to ends, or employ our natural powers, either to the producing of good, or avoiding of evil.” (39-40)

It's good because it allows us to conform our belief to the course of nature an act accordingly

Without custom we couldn't do that, since that's the only way we can access causal relations

“As nature has taught us the use of our limbs, without giving us the knowledge of the muscles and nerves, by which they are actuated; so has she implanted in us an instinct, which carries forward the thought in a correspondent course to that which she has established among external objects; though we are ignorant of those powers and forces, on which this regular course and succession of objects totally depends.” (40)

But that's a super-weird thing for Hume of all people to say:

- 'harmony' requires that the succession of our ideas mirror the course of nature
- We can observe rough harmony about past 'course of nature' and past 'succession of ideas': we have always expected smoke when we've seen fire, and we've been right
- But He seems to be suggesting that this harmony isn't just historical, but likely to continue in the future

- Why think that? He just said that we have no idea about the ‘forces or powers’ (i.e. causal relations) that govern the course of nature
 - So we have not idea whether the course of nature will continue into the future
 - So maybe our customary response to constant will in the future fail to conform to nature, which will be a very bad thing

On Belief:

Custom doesn't just cause me to conceive of smoke when I see fire, it causes me to *believe* that I'll see smoke.

What's the difference between merely conceiving, i.e. imagining, and believing?

Belief can't be an *idea* that gets connected with 'smoke' whenever I see fire:

We can use our imagination to rearrange ideas however we like

Ex: we can put the horn on the head of a horse to make a unicorn

But we can't just believe whatever we want: that's not something we control

So:

"the difference between fiction and belief lies in some sentiment or feeling, which is annexed to the latter, not to the former, and which depends not on the will, nor can be commanded at pleasure." (35)

More precisely:

"...belief is nothing but a more vivid, lively, forcible, firm, steady conception of an object, than what the imagination alone is ever able to attain." (36)

Super-quick: Hume on Metaphysics of Causation

We've been talking about the epistemic role of causation and causal reasoning

But what is causation itself? (metaphysical question)

Goes by many words in metaphysics: power, force, energy, necessary connection; each is obscure, hard to understand

To clarify concepts we appeal to the copy principle: all ideas are copies of impressions or complex constructions of such copies

Method:

“To be fully acquainted, therefore, with the idea of power or necessary connexion, let us examine its impression; and in order to find the impression with greater certainty, let us search for it in all the sources, from which it may possibly be derived.” (44)

But where does that impression come from?

Locke thought it came from two sources:

1. external impression so of interactions of things in the world
2. internal impressions of our abilities to move our bodies

Hume rejects 2: all we experience externally is constant conjunction, superficial properties, never necessary connections

Hume rejects 1 (sort-of): we don't experience the causal power of our willing: all we experience is the willing followed by bodily action. I.e. we experience a constant conjunction of will and action, never constant conjunction

So where does the idea of necessary connection come from?

“It appears, then, that this idea of a necessary connexion among events arises from a number of similar instances which occur of the constant conjunction of these events; nor can that idea ever be suggested by any one of these instances, surveyed in all possible lights and positions. But there is nothing in a number of instances, different from every single instance, which is supposed to be exactly similar; except only, that after a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe that it will exist. This connexion, therefore, which we feel in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connexion.” (52-3)

So what’s the definition of causation?

Like Locke, Hume think it has two parts:

1. External component: we may define a cause to be an object, followed by another, and where all the objects similar to the first are followed by objects similar to the second
 - a. NB there’s nothing here we can’t experience - it’s just the constant conjunction
2. Internal component: an object followed by another, and whose appearance always conveys the thought to that other: a feeling of expectation

Section X - On Miracles

Intro

- **2010 Pew study:** asked Americans ‘do you believe that miracles occur today, as in ancient times?’
 - o 79% Americans (=260m people) say yes, 78% Americans 18-29 say yes
- mostly based on testimony
- Religious belief just is belief in miracles

Outline of what we’re doing:

- Ultimately Hume argues that religious miracles are impossible
- So what’s a miracle?

Miracles

- Miracles are exceptions to (apparent) laws of nature (76)
 - o Problem: Laws of nature = exceptionless regularities
 - o I know a priori that there can be no exceptions to exceptionless regularities
 - o So, I know, trivially, that all testimony for genuine miracles is misleading
 - o *Apparent* law of nature = uniform experience of conjunction of A and B
 - o *Apparent* miracle: exception to an apparent law of nature
- Exceptions to laws of nature are impossible a priori - they’re just *exceptionless* regularities
- But, we can’t disregard that testimony without irrational dogmatism
 - o Rules out obvious type of scientific progress: can’t learn that some swans are black
 - o Also question-begging against opponents:
 - defines miracles out of existence
- What’s needed:
 - o So, if I could be certain that something is a law of nature - a regularity to which there are no exceptions - I could disregard all testimony of an exception to that law without argument

Hume’s three goals in Section X:

1. Propose a general theory of testimonial justification
2. From general theory, derive an account of when it’s rational to believe testimony that an exception to an observed regularity - an apparent miracle - has occurred
 - a. Theory should ensure that this is possible
3. Argue that, in the particular case of religious miracles, that criterion is never satisfied

Re: 1 - Hume’s general theory of testimony

“...there is no species of reasoning more common, more useful, and even necessary to human life, than that which is derived from the testimony of men, and the reports of eye-witnesses and spectators. This species of reasoning, perhaps, one may deny to be founded on the relation of cause and effect. I shall not dispute about a word. It will be sufficient to observe that our assurance in any argument of this kind is derived from no other principle than our observation of the veracity of human testimony, and of the usual conformity of facts to the reports of witnesses. It being a general maxim, that no objects have any discover-able connexion together, and that all the inferences, which we can draw from one to another, are founded merely on our experience of their constant and regular conjunction; it is evident that we ought not to make an exception to this maxim in favour of human testimony, whose connexion with any event seems, in itself, as little necessary as any other. Were not the memory tenacious to a certain degree; had not men commonly an inclination to truth and a principle of probity; were they not sensible to shame, when detected in a falsehood: Were not these, I say, discovered by experience to be qualities, inherent in human nature, we should never repose the least confidence in human testimony. A man delirious, or noted for falsehood and villany, has no manner of authority with us.” (77-8)

Structure of testimonial justification:

1. Sam testified that it's snowing
 2. If Sam testified that it's snowing, then it's snowing
 3. It's snowing
- This is a *reductionist* theory because it reduces testimony derived from testimony to justification derived from other sources:
 - o Justification for (1) comes from perception: I hear someone say that P
 - o Justification for (2) is complicated:
 - At first pass, justification from (2) comes from my memory and inductive inference
 - So, justification for (3) *reduces* to justification for (1) and (2): it reduces, to perception, memory, and inductive inference
 - What actually happens when I obtain testimony that P?
 - o Taken for granted that we become certain that (1), that S says that P
 - o Naïve view: if you're already highly confident that (2), then become highly confident that (3)
 - o But, what if I was also highly confident that not-(3)?

- KEY POINT: coherence requires that after learning that (1), I can't be highly confident in both (2) and in (3): I must reduce confidence in at least one of them
 - BUT: coherence doesn't say which one
- Hume's key claim (mostly implicit):
 - In case where
 - Start out highly confident in (2) and not-(3)
 - So I think it's very unlikely that (1)
 - But then I become certain that (1)
 - Something has to give: what?
 - We should reduce confidence in both (2) and (3) in proportion to our relative confidence in each

Re: 2: applying the theory to the case of miracles in general (not just religious miracles)

Applied to testimony about (apparent) miracles the theory becomes:

1. S testified that miracle X has occurred
2. If S testified that miracle X has occurred, then miracle X has occurred
3. Miracle X has occurred

Before the testimony, what should I believe about (2)?

- (2) is a matter of fact, so it can only be supported by experience
 - Hume: Depends on the 'observed veracity of human testimony, and of the usual conformity of facts to the reports of witnesses'.
- But (2) is about the testimony of S, not human testimony in general.
 - What factors are relevant to inferring (2) from *human testimony in general is reliable*? Two types
 - 1. Facts about the testifier
 - Other testifiers agree?
 - Lack of disagreement with other testifiers?
 - Interest in the outcome?
 - Mannerisms: too eager? Too hesitant?
 - Drunk?
 - Expert?
 - 2. Facts about the testimony's contents: Are reports of *this type* generally reliable?
 - Reports about distant past are unreliable:
 - E.g. 'here's the speech that Julius Ceaser gave right before crossing the rubicon'
 - Reports about which there's lots of disagreement
 - 'X was the best band at SXSW this year'
- Strongest possible testimony: testifiers of *that type* giving testimony of *that type* always report truly.
 - So there's a constant conjunction between their testimony and the truth

- So there's a *proof* that they're telling the truth
- So it would be a *miracle* if they were reporting falsely

Before the testimony, what should I believe about (3)?

- Since X is a (apparent) miracle, my experience has been of an exceptionless regularity of not-X:
 - Observed exceptionless regularity amounts to a *proof*:
 “A wise man... proportions his belief to the evidence. In such conclusions as are founded on an **infallible experience**, he expects the event **with the last degree of assurance**, and regards his past experience as a full proof of the future existence of that event.” (73 bottom)
- So, I should be maximally confident that (3) is false
 - This is true for all miracles, not just religious miracles

How to ‘proportion belief to the evidence’?

- Evidence that miracle has not occurred is maximally strong
 - Uniform experience against it, so evidence against it amounts to a proof

“The plain consequence is (and it is a general maxim worthy of our attention), “That no testimony is sufficient to establish a miracle, unless the testimony be of such a kind, that its falsehood would be more miraculous, than the fact, which it endeavours to establish; and even in that case there is a mutual destruction of arguments, and the superior only gives us an assurance suitable to that degree of force, which remains, after deducting the inferior.” When anyone tells me, that he saw a dead man restored to life, I immediately consider with myself, whether it be more probable, that this person should either deceive or be deceived, or that the fact, which he relates, should really have happened. I weigh the one miracle against the other; and according to the superiority, which I discover, I pronounce my decision, and always reject the greater miracle. If the falsehood of his testimony would be more miraculous, than the event which he relates; then, and not till then, can he pretend to command my belief or opinion.” (80)

Re: 3 - applying the theory to the particular case of religious miracles

- Testimony about *religious* miracles is a special type of testimony about miracles
 - So, there are *proofs* against religious miracles (as with all miracles)

- So, if it's ever rational to believe that the religious miracle has occurred, must be an even stronger proof of the reliability of that testimony
- Do we have a proof of the reliability of testimony about religious miracles?

1. Insufficient numbers of testifiers of the right kind (78)

“For first, there is not to be found, in all history, any miracle attested by a sufficient number of men, of such unquestioned good-sense, education, and learning, as to secure us against all delusion in themselves; of such undoubted integrity, as to place them beyond all suspicion of any design to deceive others; of such credit and reputation in the eyes of mankind, as to have a great deal to lose in case of their being detected in any falsehood; and at the same time, attesting facts performed in such a public manner and in so celebrated a part of the world, as to render the detection unavoidable: All which circumstances are requisite to give us a full assurance in the testimony of men.”

2. human nature disposes us to believe the surprising and the wonderful, and we love to gossip (78)

“Secondly. We may observe in human nature a principle which, if strictly examined, will be found to diminish extremely the assurance, which we might, from human testimony, have, in any kind of prodigy... The passion of surprise and wonder, arising from miracles, being an agree- able emotion, gives a sensible tendency towards the belief of those events, from which it is derived. And this goes so far, that even those who cannot enjoy this pleasure immediately, nor can believe those miraculous events, of which they are informed, yet love to partake of the satisfaction at second-hand or by rebound, and place a pride and delight in exciting the admiration of others.”

3. miracle reports come from ‘ignorant and barbarous nations’

“Thirdly. It forms a strong presumption against all supernatural and miraculous relations, that they are observed chiefly to abound among ignorant and barbarous nations; or if a civilized people has ever given admission to any of them, that people will be found to have received them from ignorant and barbarous ancestors, who transmitted them with that inviolable sanction and authority, which always attend received opinions.” (82)

4. Disagreement between religions arises from disagreement among miracle-testifiers

- i. Miracles support religions
- ii. Different religions are mutually incompatible: if one is true the others are false

- iii. If miracles support a religion, and the religion is false, then the miracles probably didn't happen (kind of modus tollens here)
 - a. So: evidence of a miracle that supports truth of Manicheanism is evidence that Zoroastrianism is false, which is evidence that the miracles that Zoroastrianism didn't actually happen
- iv. If testimony of miracles provided grounds for belief then we'd have justification to believe all the miracles
- v. But then my justification to believe Manichean miracle M provides reason to doubt Zoroastrian miracle Z, so those justifications destroy one another

"...no testimony for any, even those which have not been expressly detected, that is not opposed by an infinite number of witnesses; so that not only the miracle destroys the credit of testimony, but the testimony destroys itself. To make this the better understood, let us consider, that, in matters of religion, whatever is different is contrary; and that it is impossible the religions of ancient Rome, of Turkey, of Siam, and of China should, all of them, be established on any solid foundation. Every miracle, therefore, pretended to have been wrought in any of these religions (and all of them abound in miracles), as its direct scope is to establish the particular system to which it is attributed; so has it the same force, though more indirectly, to overthrow every other system. In destroying a rival system, it likewise destroys the credit of those miracles, on which that system was established; so that all the prodigies of different religions are to be regarded as contrary facts, and the evidences of these prodigies, whether weak or strong, as opposite to each other." (84)

Conclusion:

"Upon the whole, then, it appears, that no testimony for any kind of miracle has ever amounted to a probability, much less to a proof; and that, even supposing it amounted to a proof, it would be opposed by another proof, derived from the very nature of the fact, which it would endeavour to establish. It is experience only, which gives authority to human testimony; and it is the same experience, which assures us of the laws of nature. When, therefore, these two kinds of experience are contrary, we have nothing to do but substract the one from the other, and embrace an opinion, either on one side or the other, with that assurance which arises from the remainder. But according to the principle here explained, this subtraction, with regard to all popular religions, amounts to an entire annihilation; and therefore we may establish it as a maxim, that no human testimony can have such force as to prove a miracle, and make it a just foundation for any such system of religion." (88)

- Testimony about miracles is always problematic, requires a *proof* that the testimony is reliable
- Testimony about *religious* miracles is particularly problematic
 - o Defective for above four reasons
 - So, never amounts to a proof
 - So, can never be rational to believe that a religious miracle has occurred on the basis of testimony

Illustration cases:

8 days of darkness:

- Miraculous event (uniform experience against it)
- But, testimony amounts to a proof
- So, might be rational to believe it

Queen Elizabeth's resurrection:

- Miraculous event (uniform experience against it)
- Understood as a *religious* miracle, testimony does not amount to a proof
- So, no rational to believe it