David Hume 2 - The Mechanical Principles of Human Nature: Scepticism and Induction

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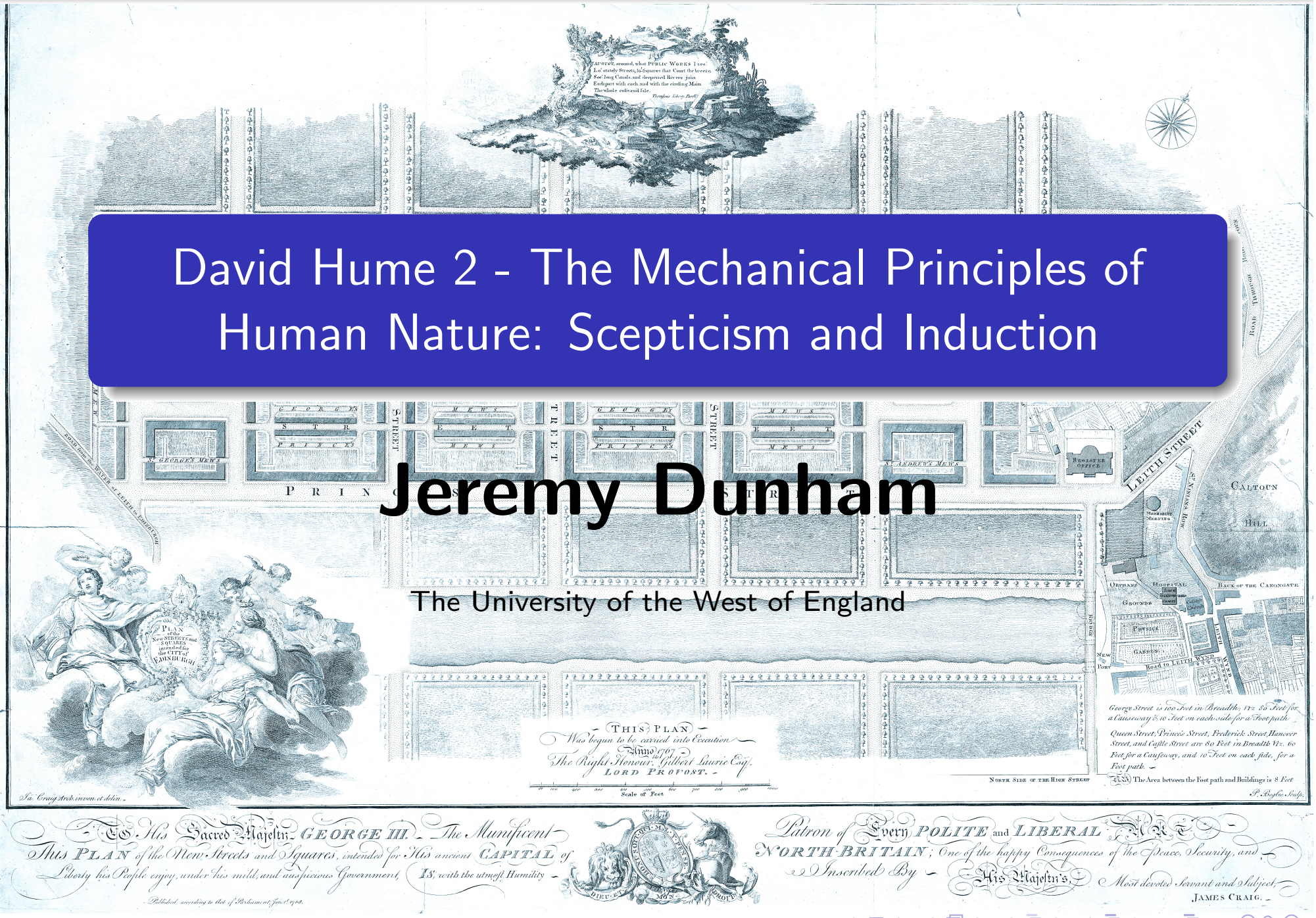
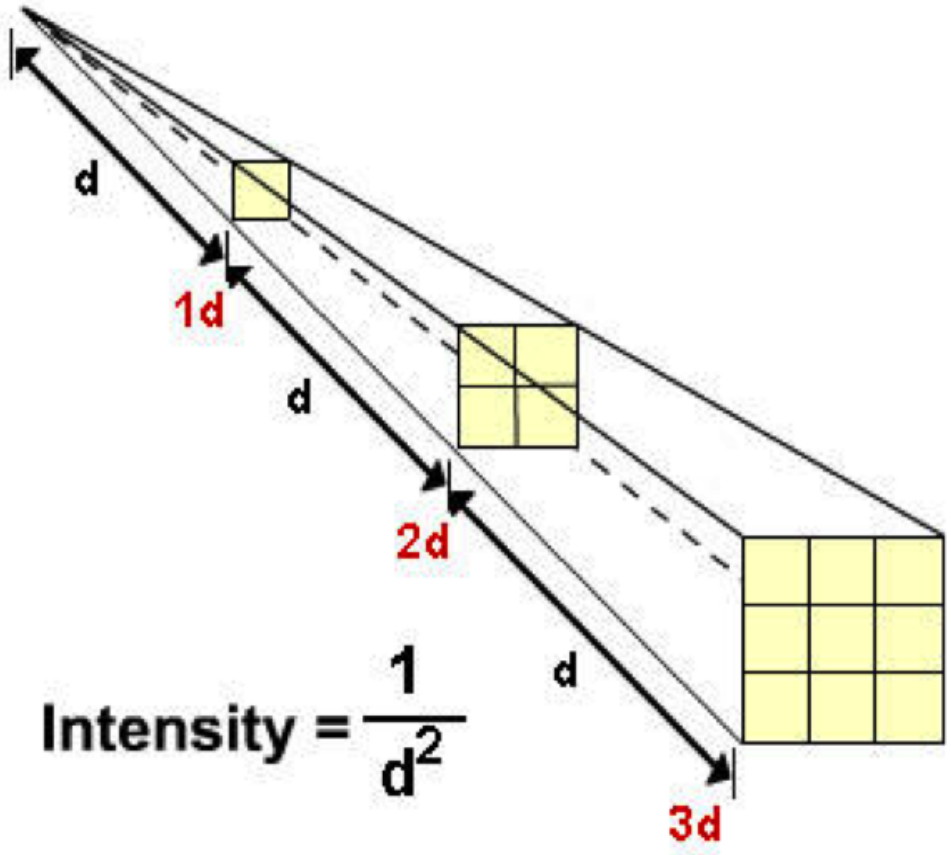


Introduction

David Hume

- The Mechanical Laws of the Human Mind

Newton's Law of Gravity



- 'Every object in the universe attracts every other object in the universe with a force proportional to the objects' masses and inversely proportional to the square of the distance between their centres' (Kuhn, 1996: 42)

Hypotheses Non Fingo

Newton and Gravitational Force

- 'I have not as yet been able to discover the reason for these properties of gravity from phenomena, and I do not feign hypotheses. For whatever is not deduced from the phenomena must be called a hypothesis; and hypotheses, whether metaphysical or physical, or based on occult qualities, or mechanical, have no place in experimental philosophy. In this philosophy particular propositions are inferred from the phenomena, and afterwards rendered general by induction.' (*Principia Mathematica Philosophiae Naturalis* Cohen and Whitman, 1999: 943)

Newton and Hume

- ‘While Newton seemed to draw off the veil from some of the mysteries of nature, he shewed at the same time the imperfections of the mechanical philosophy; and thereby restored her ultimate secrets to that obscurity, in which they ever did and ever will remain’ (Hume, History vi. 542)

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- Hume’s sceptical method
- ‘The most perfect philosophy of the natural kind only staves of our ignorance for a little longer’ (EHU 4, 12)

On the Association of Ideas

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- 'the empire of the imagination is regulated by a secret tie or union among particular ideas, which causes the mind to conjoin them more frequently together, and makes the one, upon its appearance, introduce the other' (Treatise, 662)
- This *universal principle* can be divided into three further principles (1) *Resemblance*; (2) *Contiguity in Time and Place*; (3) *Cause* and *Effect*

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2. Hume places non-rational mental principles and the capacity for error at the centre of his work

Sceptical Doubts Concerning the Operations of the Understanding

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3. Hume's Fork: *a priori* & *a posteriori* knowledge

Hume's Fork

Relations of Ideas

- Geometry, Mathematics, Algebra
- Self-evident or demonstratively certain
- *Example* - The square of the hypotenuse is equal to the square of the other two sides
- There cannot be a square circle

Matters of Fact

- The testimony of the senses
- The contrary of every matter of fact is possible
- Contingent facts rather than Necessary truths
- The sun may or may not rise tomorrow
- Assert existence

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4. a) touching the fire is the cause of my b) sensation of warmth, the effect
5. If all of our reasonings concerning matters of fact are based on this relation of *cause and effect* then it follows that these reasonings are only as solid as our knowledge of *cause and effect*

Cause, Effect and *a priori* reasoning

- Could Adam have deduced an effect from a cause using only *a priori* reasoning?
- Could you?

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- C) When I touch the flame I will feel warmth

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- Could you?
- P1) I see in front of me an orangey flickering flame
- P2) When I touch things with my hand several types of sensation may result
- C) When I touch the flame I will feel warmth

Cause, Effect and *a priori* reasoning

- Test the Theory! Can you think of any *a priori* argument which could help you establish the effect from the cause without you ever having had any experience of the effect?

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3. Q2: *What is the foundation of all our reasonings and conclusions concerning that relation?*
4. Hume answered: This cannot be *a priori* reasoning and must therefore be experience
5. Q3: What is the Foundation of the conclusions from experience? For example, the conclusion: 'Next time I touch a flame I will feel heat'

Deductive and Inductive Arguments

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3. Inductive Arguments: Broad Definition - Any non-deductive arguments. Narrow Definition - Reasoning about non-observed facts on the basis of observed facts.
4. From the fact that whenever I have touched a flame in the past I have felt heat, I infer that the next time I touch a flame I will feel heat.

Inductive Reasoning

Inferences from Experience

- 1) I have found that such an object has always been attached with such an effect
- 2) I forsee, that other objects which are in appearence similar, will be attended with similar effects

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Newton's Law of Gravity

1. Every observed pair of objects has obeyed Newton's law of gravity
2. Every unobserved pair of objects obeys Newton's law of gravity

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3. Our experimental conclusions proceed on the assumption that the future will conform to the past
4. Circular Reasoning! We assume the sun will rise tomorrow because the future will conform to the past
5. 'this reasoning takes that for granted, which is the very point of the question' (*EHU* 4, 19)

Inductive Reasoning

Inferences from Experience

- P1) In the past, the sun has risen regularly every day for as long as any human being is aware
- P2) The future will conform to the past
- C) The sun will rise tomorrow

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- P1) In the past, the sun has risen regularly every day for as long as any human being is aware
- P2) The future will conform to the past
- C) The sun will rise tomorrow (The future will conform to the past)

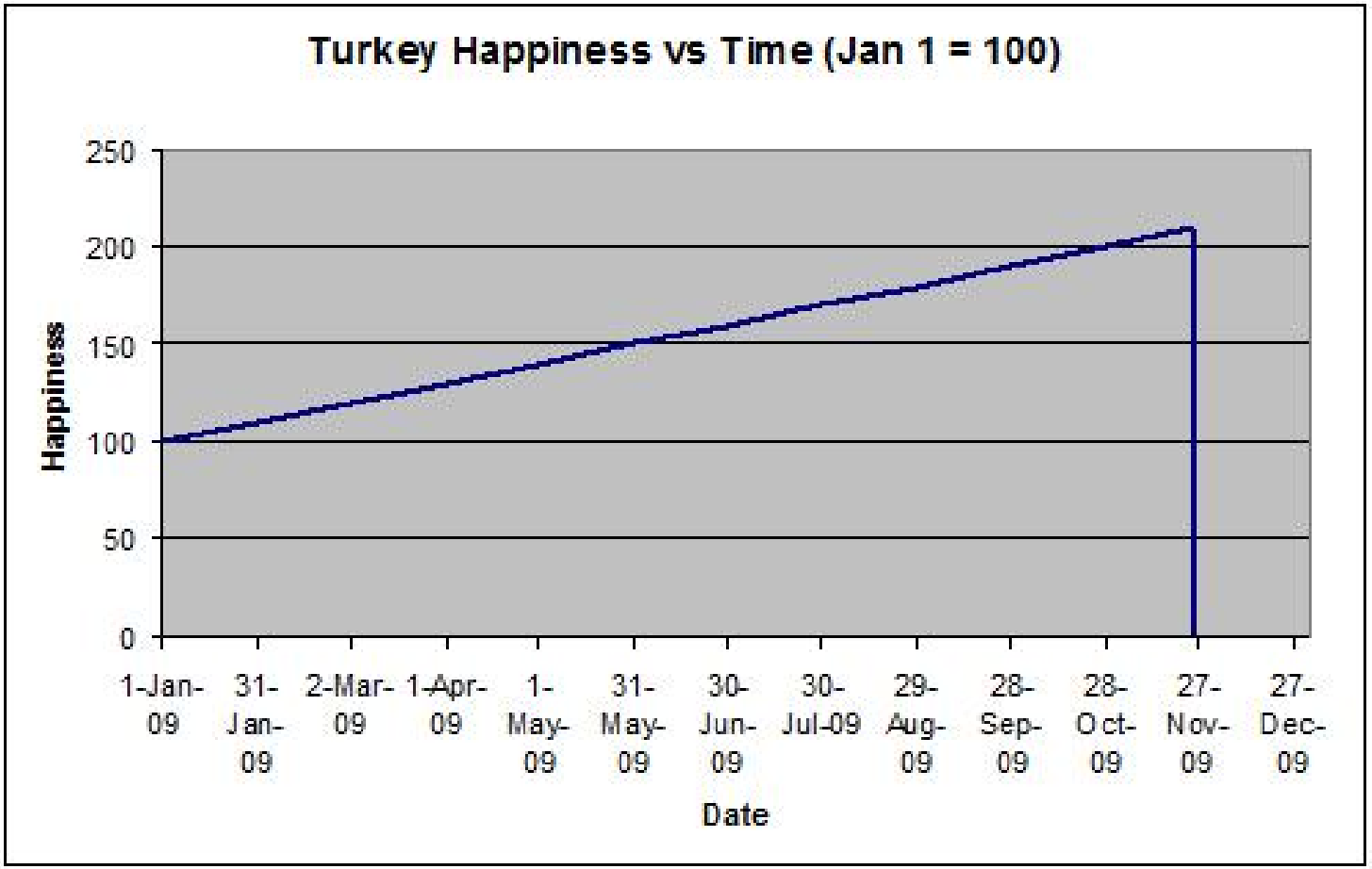
Begging the Question

'An argument commits the fallacy of begging the question when the truth of its conclusion is assumed by one or more of its premises, and the truth of the premises depend for their justification on the truth of the conclusion. Thus the premises ask the audience to grant the conclusion even before the argument is given. Contrary to the way in which the phrase is used in ordinary language, begging the question does not mean raising the question without offering an argument' (Bowell and Kemp, 2010: 233)

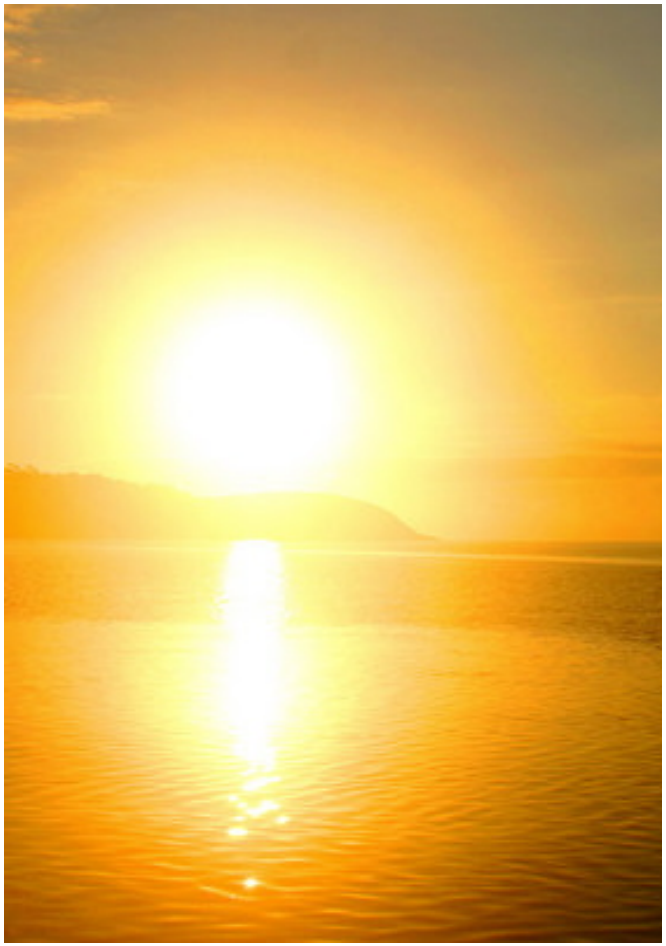
Russell's Chicken

- Is our situation any better than that of Russell's Chicken?

Russell's Chicken



Hume's Problem of Induction



- Test the Theory! Can you think of an argument which proves that the sun will rise tomorrow which does not 'beg the question'?

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1. We are aware of no rational argument based on experience or reason which can conclude that we should expect future events to resemble past events
2. All of our inductive reasonings are inherently fallible
3. To be fallible is not to be defective unless what is at stake is certainty
4. Certainty is an excessive demand - philosophy and human society both win once this demand is given up (See Buckle, 2001:167-168)

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3. He would assume one event the cause and the other the effect. Why?

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3. He would assume one event the cause and the other the effect. Why?
4. The Principle of *Custom* or *Habit* is a *universal principle of human nature*
5. The principle of custom or habit is a sceptical solution because it is a *manifest* principle and not an ultimate principle of nature

Mechanical Principles of Human Nature

1. All simple ideas are derived from simple impressions
2. Our ideas are regulated by the imagination according to the three principles of association
3. The principle of custom or habit guides our inferences from past events to future events

Conclusion

Hume on Causation - Main Points

1. Hume intends to discover the mechanical laws of the human mind which are analogous to Newton's mechanical laws of nature.
2. Our ideas are regulated by the imagination according to the three principles of association.
3. We cannot use a priori reason to establish effects from causes alone.
4. We cannot conclude that 'certain effects will necessarily follow certain causes' from experimental reasoning without 'begging the question'.
5. The principle of custom or habit guides our inferences from past events to future events.