

1. Introduction to Philosophy

- PHL 221, York College
- Revised, Spring 2019

2. Overview of Course

- Knowledge
- Are you a self?
- Ethics: What is justice? What is goodness?
- Does God Exist?

3. Epistemology:

4. "What do you know?"

5. "How do you know it"?

6. Plato: introduction

- Sophists questioned traditions and accepted practices
 - "everything is relative"
- Socrates (d. 399 bce) wanted to find "truth"
 - "divine sign"
- Plato wrote down Socrates' "dialogues"

7. Plato's problem

- Parmenides: "what is, is"
 - nothingness doesn't exist
- If things change, can they be real?
- Zeno's "dichotomy paradox": to go $\frac{1}{2}$ the distance, you must go $\frac{1}{4}$... $\frac{1}{8}$, $\frac{1}{16}$, etc. You will never get "there"
 - motion is "nothing"
 - $v = d/t$; how do you calculate motion in an infinitely small period of time?

8. Plato's solution

- "two-worlds theory": appearance and reality = Becoming/Being
- Forms (14): the "essence" of whatever has being
 - forms experienced by pre-incarnate souls in transcendent realm of being
 - by forms we re-cognize what a thing "is" (e.g., triangles, 18)
 - some forms are "essential," others are "accidental"

9. Allegory of the Cave

10.

11. Rising from Opinion to Knowledge

12. René Descartes

- Senses deceive
 - Dreaming/waking; imaginary representations
 - Error was a defect (30)
- Need to doubt
 - "The Evil Genius"
 - "clear and distinct" knowledge (36)
 - "Innate ideas"

13. A Thinking thing

- “I must exist”
 - “I” am reflecting (32)
 - Not who, but what (33)
- Cogito ergo sum
 - “I think, therefore I am”
 - the Cartesian ego
 - Is your own existence “indubitable”? Why or why not?

14. “The rest of the story...”

- I know I (a thinking thing) exists
- I can think “perfection”
 - Therefore, a perfect being exists
 - Otherwise, how would I know “perfection”?
- A perfect being would not deceive
- Therefore, I can trust sensations

15.

16. Empiricism

- John Locke
- Experience gives certain knowledge
- Rejection of innate ideas
- <https://www.sciencedaily.com/releases/2012/02/120221104037.htm>
- Tabula Rasa (p. 43 #2)
- How do **you** think external objects produce ideas (49)?

17.

18. George Berkeley

- Response to “egocentric predicament of truth”
- “Idealism”
- Only ideas exist
 - Mental states
- Characters
 - “Hylas: “matter,” ← *hyle*
 - “Philonous”: “friend of mind”

19. The problem of “scepticism”

- If reality is in “matter” and in our perceptions of matter, then how can we know reality?
- Idealism is preferable to scepticism (52 top)

20. Where are sensations?

- Heat exists in the mind
 - Heat is pain
 - “Material substance” does not feel pain (54)
- What about “moderate heat”?
- How does this lead to his conclusion?

21. Taste, colors, Extension

- Sweetness (57)
- Colors (58-9)
- “Extension” (60-1)?
- Matter (62): “under” “sensible qualities”
 - “Under” implies extension

22.

- “How then is it possible that things perpetually fleeting and variable as our ideas should be copies or images of anything fixed and constant? “...since all sensible qualities, ... are continually changing upon every alteration in the distance, medium, or instruments of sensation—how can any determinate material objects be properly represented....”

23. External “reality” is constantly changing

- “...if you say it [the object] resembles some one only of our ideas, how shall we be able to distinguish the true copy....?”
- “If a tree falls in a forest with no one to hear it, does it make a sound?”

24. Sensations in the mind 64-5

- *Esse est percipi*: “to be is to be perceived”
 - Yet things do not “depend ... on my thought”
- Something must be perceiving all things all the time
 - “Universal Perceiver”

25.

26. David Hume

- Impressions and Ideas
- Ideas are copies of perceptions
 - a perception is “precedent feeling or sentiment”
- The “empirical criterion of meaning” (68)
 - The meaning of any idea is based on an “impression”

27.

28. How do we know anything?

- Relations of Ideas vs. Matters of Fact
- All other knowledge is based upon the fact that:
 - Two events are conjoined
 - Every event is separate from other event
 - Habitual experience tells me to expect certain conjunctions

29.

30. Cause and Effect

- Scientific knowledge before Hume: “universal, necessary, and certain”
- Hume: We do not know:
 - ...that a particular cause will lead to an effect
 - ...that an effect had a certain cause
 - We assume it, based on experience (73)

31. Reason and Experience

- Top p. 73: (1) “I have found . . .” and (2) “I foresee”
 - Do you infer (2) from (1) *by a chain of reasoning*? Can you “reproduce” that chain of reasoning?
- Habitual experience
 - The future will resemble the past
 - However, we cannot “prove” this based on experience
 - Since we already *assume* it

32. “The Sceptical solution”

- Life is a “continual succession” of events, with a “arbitrary and casual” “conjunction”
- Doesn’t change everyday life
 - Questions the alleged certainties of philosophy

33. Custom as basis of Belief

- “Custom or Habit” (74)
 - All reasonings are hypothetical
- All beliefs derived from:
 - An object
 - Present to senses or memory
 - And a customary conjunction with some other object

34. Reason serves the passions

- “reason alone [by itself] is merely the “slave of the passions”
- i.e., reason pursues knowledge of abstract and causal relations solely in order to achieve passions’ goals and provides no impulse of its own

35. To this point . . .

- Rationalism: innate ideas → deductive truth
- Empiricism: sensation, experience → ideas
- Ideas: “perceptions” in the mind
- Skeptic empiricism: ideas must be traceable to sensed impressions
 - Cause-and-effect questionable
 - Does science give universal truth?

36. Immanuel Kant

- How can knowledge be “scientific”?
 - Must be “a priori”: independent of (prior to) sense data
- Must be universal knowledge
 - “universal, necessary, and certain”
 - Not knowledge of this or that

37. Kant’s “Copernican revolution”

- Before Kant: knowledge conformed to the object
- Kant: “objects must conform to our cognition”
 - “the constitution of our faculty of intuition”
 - (p. 78 middle and bottom)

38. Empirical Knowledge vs. Pure

- “a compound of” experience and knowledge
 - (Ames room: <https://www.youtube.com/watch?v=gJhyu6nlGt8>)
 - “sensuous impressions giv[e] merely the occasion”
 - yet “cognition” does something to the raw material
- A posteriori knowledge: source in experience

39. Pure Knowledge

- A priori knowledge: independent of all experience
- Impure: require empirical knowledge to “trigger” it (79)
- Pure a priori knowledge: no admixture of empirical knowledge

40. Tests for recognizing pure knowledge

- Necessity: it has to be
- Strict (not empirical) universality
 - The “indispensable basis of the possibility of experience” itself
- Cause and effect, space, substance, time

41. Judgements about A Priori Ideas

- Review: pre-existing ideas
 - Necessary for any knowledge
 - Pre-cede the knowledge
- Analytical: defined in the idea
- Synthetical: adds something to the idea

42. Analytical Judgments

- Predicate belongs to the subject
 - “X is y”: X=subject; y=predicate
- “X is y”: Connection is one of identity
 - “explicative”
 - “Humans are mortal.”

43. Synthetical Judgments

- Predicate adds something to the subject
- “This x has/is y”
- “Augmentative”
- Based on experience

44. Example 1: Judgements about causes (82 bot.)

- “Everything that happens [x] has a cause [y]”
 - “has a cause” is not identical to “everything that happens”.
 - Y expands or develops X (augmentative)
 - Yet seems to be a priori: experience does not tell us of it

45. Example 2: Mathematical Judgments (p. 83)

- Does “7+5” “contain” “12”?
 - We have an intuition of what it means to “add”
- “7+5=12” is a priori
 - (we don’t base it on experience)
 - nonetheless it is synthetic

46. Synthetical Judgments A priori (2)

- Cannot use experience
- = “a priori”
- An additional “intuition” creates the synthesis (84)
 - Not derived from experience (Not sensations)
 - But neither is it *analytical*
- Their “representation[s] ... must already exist as a foundation”

47. Categories of Understanding

- Categories in which understanding takes place
- Space, time, causality, substance
 - According to Hume, we have no *impression* of them → these aspects of experience are not “real”
- However, they must exist in order to know anything else

48.

49. Do you have a self? Who (what) are you?

50. Origins of the concept of “self”

- What makes it “move”?
 - *Pneuma* (“wind”) and *Psyche* (“breath”)
 - life-force
- What is beyond-the-physical?
 - Body: Corporeal (*corpus*)
 - Spirit: Non-corporeal
- Self-consciousness: “narratization” of “I-space” (see 111-2 for split-brain phenomena)

51. “Staying Alive”

- Bodily continuity (something of the body)
- Psychological continuity (thoughts, beliefs, memories)
- Continued existence of a “soul”

52. Solution 1: Essentialism

- what makes you, you?
- (Plato) Is there a form, “human”? Does it differ from other “humans”?
- Aristotle: “essence” of human is “rational animal”
 - “Essence” is sometimes identified with “soul”
 - Mind (Descartes) = “Soul theory” (see 110)

53. Mind and Dualism (Descartes)

- *Cogito ergo sum*: What is the “I”?
- Mind: a substance that thinks
- Body is “extension” (101)
- Mind and Body
 - Mind not merely like a sailor in a ship (103)
 - United, becomes “me”
 - “dualism” = two-substances (see 102)

54. Solution 2: the body

- Brain-transplant (95)
- Would you agree to be duplicated and killed in order to get \$100 million (109)?
- “Theseus’ ship” (95, 115-6)

55. Locke, Self as memory (solution 3)

- Distinguishing a “person” from a Cartesian “man” (=human being)
- A “**man**” is a “thinking or rational being” joined to a “human” body (124)
 - A “man” without reason (e.g. in a coma) is still a man
 - A “parrot” philosophizing is still a parrot
- A **person** is a being that “can consider itself as itself” and “perceiving that he does perceive”

56. Sameness of Self

- “The sameness of a rational being” (125)
 - “It is self to itself ... as far as the same consciousness can extend to actions past or to come” (125)
- = Continuity of consciousness
- After sleep, are you the same?
 - Your *substance* may have changed
 - Personal identity \neq substance

57. The Prince and the Cobbler

58. The Prince and the Cobbler

- Locke’s answer:
 - As a *man* (=“human”), he would be a cobbler
 - Yet the *person* of the prince
- Is Socrates waking to blame for what Socrates sleeping did (127, 119)?
 - Moral responsibility

59. Reid

- Is the conviction of identity necessary to “all exercise of reason”
 - What about “unconscious” thinking processes?
- Is the “conviction of our own continued existence and identity” **proof** of it?
 - Reid admits that he cannot define “identity.” *Why do you think this is so?*

60. Reid on the self

- Can a “person” have parts? Why does Reid think the answer is no?
- Locke: personal identity IS “continuity of consciousness”
- Reid: “memory gives the most irresistible evidence of my being the identical person” = “personal self” (132)
- Is there a difference between memory constituting identity, and memory being evidence for identity?

61. “The Brave Officer Paradox” (117-8)

- Three events
 - flogged at school for robbing an orchard
 - captured a standard
 - is now a general
- Officer¹: captures standard & remembers flogging
- Officer²: is a general and remembers the standard
- Are Officer¹ and Officer² the same person?

62. David Hume on the Self: Review

- “The empirical criterion of meaning” (see 138)
 - The meaning of any idea is based on an “impression”
- Impressions versus Ideas
 - Do you have an “impression” of your self?
 - “some philosophers” think “we are every moment intimately conscious of what we call our Self”
 - The impression of “self” “must continue invariably the same through the whole course of our lives”

63. Hume's Bundle Theory of the Self

- I only know “particular perception[s]”
 - Succeed each other
 - No “simplicity” or “identity”
- In thinking we have a self, we confuse closely connected things with identical things (140)
 - The experience of the “self” is an experience of different, although related moments, not a single thing.

64. Bundle Theory of the Self (2)

- Is he right?
 - Does that prove that the “self” is not a single, self-identical thing?
 - What connects the “parts” of “the self?”
- Do “we observe some real bond [=identity] among [a person's] perceptions, or only feel one among the ideas we form of them” (141)?

65. Kant's theory of the self

- Hume: we don't know “the self”
- Kant: how do we explain the unity among our separate experiences?
 - There must be some-“thing” uniting separate experiences of “self” together
 - This “self” is *a priori*

66. I am a “single subject”

- The same self has sensations, memory, ...
- Something “brings” it together
- This unity is *a priori*
- Not experienced, but “already known”
- “as if”: we act *as if* the self is there

67. The Self: Review

- Descartes: dualism, unity of body and mind
- Locke: identity *is* continuity of consciousness
- Reid: consciousness is *evidence* of identity
- Hume: bundle theory--changing perceptions
- Kant: transcendental unity of perceptions

68. Ethics

- What is justice? What does it mean to act “well” (be “good”)?
- The Origins of Philosophy and Relativism
- Teleology: character
- Deontology: duty
- **Utilitarianism**: great happiness for greatest number

69.

70.

71. The Origins of Philosophy

- Trade
- The Persian Wars (546–479 bce)
- Athenian Empire
- Peloponnesian War (with Sparta), ends 404 bce
- “Spiritual” impact

72. The Sophists

- Sophos: “wisdom” → “wise-ists”
 - “Sophist-icated”
 - Well-traveled
 - Teachers
- Traditional religion and morality don’t matter
- Taught men how to win (courts, society, life)

73. Relativism

- Every belief is *relative* to something else
 - (gender, ethnicity, religion, social or economic status)
- Cognitive—Ethical—Cultural
- Did Martin Luther King **win** because he was **right**, or was he **right** because he **won**?
- *Can the statement: “All truth claims are relative” be true?*

74. Protagoras

- “Man is the measure of the things that are”
- Cognitive individual relativism
- “Perception is existence”
- Socrates’ observation:
 - there is no enduring reality
 - nothing is ever a “single thing or quality”
 - since we do not perceive it as such

75. Thrasymachus (1)

- “Justice is the interest of the stronger”
 - Evidence (p. 2, lines 1-8)?
- Socrates’ counter-argument: “rulers may be mistaken about their interest”
- “Might makes right”
- “Moral Realism”

76. Socrates’ counter-argument in detail

- The ruler is “just”
 - So you should *always* obey the ruler
 - Because it is in his interest
- But the ruler may order an act that is *not* in his interest
 - Do you...?
 - Obey him (although it is not in his interest)
 - *Not* obey him (although it really *is* in his interest)

77. Callicles

- *Why do people make laws?* (Thrasymachus vs. Callicles)
- What does nature show us? How do we know this?
- “Superior individual”
- Do you think “nature” is the best guide for morality?

78. Gyges' Ring

- People are just (“fair,” “right”) “involuntarily”
 - They don't *choose* to be just
 - They do it because they “have to”
- If they don't “have to” be just, they won't be
 - They'll do whatever “they can get away with”
- Which would you rather be? →
 - “Bad” person who died rich, loved and honored by the state?
 - “Good” person who died poor, hated, forgotten?

79. What is good? What is just(ice)?

- **Aristotle:** *Virtue*, Character and the goal of *happiness*
- **Kant:** Intention, Duty, and Universal Moral Law
- **Utilitarianism:** *usefulness* and the “Greatest amount of happiness for the greatest number”

80. Aristotle: basic reasoning

- Good actions help us to reach our end/goal
 - *Telos*: teleological thinking
- Our goal is happiness (147–8): *eudaimonia*
- We reach happiness when we function (149) well (= *Virtue*, 150, definition 154)
- We develop virtue by practicing *the mean*
- Practice forms *habit* and *character*

81. Two kinds of virtue (151)

- Intellectual virtue is the excellence of reason “in the soul”
 - “mental states”: Can be taught
- Moral virtue cannot be taught
 - Gained through habit (i.e., practice)
 - We become virtuous by doing virtuous acts

82.

83. Kant's basic reasoning

- Only a good will is good
 - “will”=*volition*=motivation=intention
- ...if it wills to do its duty
- ...which is acting for duty's sake
- ...to act so that one's actions could be willed to be a universal law of nature
- ...that each human being is an end unto himself

84. Only a good will is good

- “Talents” & moral qualities can be evil
- Intentions, not consequences: 192½
- Must be guided by adequate motives
 - Not **Inclination** (want/desire) or **Prudence** (“advantage”)
- Do it *because* duty requires it (example: 193 bot.)
 - “Deontological” ethics
 - “Duty is the necessity of acting from respect for the law” (194)

85. How do we know if a motivation is “good”?

- Purposes/goals do not have “unconditional worth” (195)
- The only *worthy* motivation is “the conception of law in itself” (195)
 - It must always, generally, universally be a person’s duty
 - Such as a free will would recognize
- Maxim, i.e., “principle of volition”
- → Categorical Imperative

86. Two classes (199 bottom)

- Must be conceivable without contradiction
 - E.g., (negative example): “never help others, but always be helped by them”
- Must be able to will it--be an act of the will, not desire
- Must pass both tests

87. Four examples (198-9)

- Self-contradictory
 - Suicide
 - Lying to gain some benefit
- Are not “will-able”
 - Living without being productive
 - Not helping those in need

88. The kingdom of ends

- Human beings have unconditional worth
 - Versus “Objects of inclination,” i.e., “means” (to an end)
 - Other human beings’ worth not based on the worth they have *for me*
- Every rational being is an end in himself
 - A “self-legislator”
- “The right to freedom being the gift of God Almighty, it is not in the power of man to alienate this gift and voluntarily become a slave.” --Samuel Adams

89. Introduction to the Moral Problem of Abortion

- Abortion is Wrong
- Abortion is Ethical
- What about the *male’s* rights?

90. Abortion is Wrong

- Killing another human deprives him of his future
- Is a fetus human? A person? Is “human” = “person”?
- No difference between a fetus and a human being
 - Does **dependence** make a human a “non-person”?
 - Does lack of **sentiments** (sympathy) **or social visibility** make a human a “non-person”?
 - Does being **invisible** remove moral responsibility?

91. Abortion is ethical

- “The attached violinist” (*or*, inventor)
 - Is a fetus like an “outside” person?
 - When does a woman take on responsibility for a (possible) pregnancy?
- Giving equal rights to fetuses deprives women of *their* rights
 - Rule out 2nd trimester abortions
 - Dehumanize women by subjecting them to unwanted procedures (e.g., caesareans); blaming for miscarriages

92. What about the *male’s* rights?

- A woman can “decline responsibility”
- But a male can never “decline”
 - Even when the male does not *choose* to have relations
- This seems *unequal*, i.e., “unfair”
- Solutions
 - *Both* women and men can “decline responsibility”
 - *Neither* women and men can “decline responsibility”

93. Utilitarianism: introduction

- Jeremy Bentham, John Stuart Mill
- “hedonism” (*hedone*)
- Pleasure and pain is the basis of right and wrong
 - Pleasure shows that an act is good
 - Pain shows that an act is bad
- Consequentialism: results

94. Basic definitions

- “Utility”: productive of “benefit, advantage, pleasure, good, happiness”
 - **Principle of Utility**: for any given individual, acts that augment “utility” are good (to diminish “utility” is bad)
 - A **community** is a fictitious body of individuals
 - “sum of the interests” of individuals
- **Utilitarianism**: “A good action will bring about the greatest amount of happiness for the greatest number”

95. Why utilitarianism is moral (206)

- Seeking happiness is always moral
- Superior to :
 - Anarchy
 - Depotism (tyranny)
- Critique of religious morality (208)
 - philosophy condemns pleasure
 - religion says seek pain

96. The Hedonic Calculus

- Between two actions, the act that produces the most “**hedons**” correct action—see 210
- No motives are in and of themselves bad (212)
 - Only effects matter
- Egoistic hook
 - “hook” selfishness
 - Get people to do good by appealing to self-interest

97.

98. John Stuart Mill

- Refined Utilitarianism
- Bentham’s “simple” utilitarianism
 - All units were equal in quality
 - Only differed based on quantity of pleasure
- Mill distinguished quality

99. Human pleasures are different

- Critics of utilitarianism say that it makes human beings “pigs”
- Mill: the pleasures of a human being are different from the pleasures of a beast
- We can tell that some pleasures are better than others

100. The “Empirical Criterion” (216)

- A significant majority of...
- Those who have experienced both
- And have a decided preference
- Without any moral obligation to prefer it
- May include “discontent” or discomfort

101. Better pleasures are “better”

- So why do some prefer “lesser”?
 - Lack of “dignity” (216 bottom)
 - Lack of education
 - Easily satisfied = “Contentment” (217)
 - immediate
- Is it better to be “Socrates dissatisfied” than a pig satisfied? Does “Socrates” know both sides? (217)

102.

- the jobs have been gone now for 25 years and nothing's replaced them. . . . And it's not surprising then they get bitter, they cling to guns or religion or antipathy toward people who aren't like them or anti-immigrant sentiment or anti-trade sentiment as a way to explain their frustrations.

103. True Happiness (217-8)

- Happiness
 - Use “higher faculties” (216)
 - “Feeling and conscience”
- Laws, education, and public opinion
 - “indissoluble association” with “the good of the whole”
- Altruism: Acting for benefit of others

104.

- Society A
- Allows euthanasia
- Encouraged in society
- But some (elderly, disabled) are euthanized against their will
-
- Society B
- Euthanasia illegal
- But some who want to be euthanized cannot be

105. Does God Exist?

- PHL 221, York College
- Revised, Fall 2018

106. The god of “classical theism” and evil

- God is:
 - All loving (good) (*omni-benevolent*).
 - All knowing (*omni-scient*).
 - All powerful (*omni-potent*).
- Are these 3 characteristics internally consistent, given the apparent fact of evil?
- How do we know there is evil if there is no good?

107. http://www.qcc.cuny.edu/socialsciences/ppecorino/INTRO_TEXT/Chapter%203%20Religion/Problem_of_Evil.htm

108. The “Ontological Argument”: Anselm

- God’s *being*: a “maximally great being”
- “God is a being than which nothing greater can be conceived”
 - this being (“G”) may only exist as a *mere* conception= G^1
 - Or, G may exist *both* in conception *and* in reality= G^2
 - G^2 is greater than G^1 (e.g., a painting, an essay)
 - Therefore, God *must* exist: God’s existence necessarily flows from an understanding of his being

109. Descartes’ version: see p. 38

- God is a *perfect* (infinite) being
- Infinitude not known by negation
 - E.g., “all-powerful” is negation of weakness
 - Response: Infinitude *more real* than finitude
- I didn’t generate the idea of perfection in me
- Not an invention (“fiction”)—I didn’t make it up

110. Kant’s objection

- “existence is not a predicate”
 - if G^2 exists, but G^1 doesn’t, it includes the **predicate** existence: “I think a ‘being greater than which,’ *and* it exists.”
- Can the concept of triangles exist without “actual” triangles?”
 - “To say that something exists is to say that the concept of that thing is exemplified in the world”
 - (And how do we know that?)

111. Thomas Aquinas: the “Five Ways”

- Motion (change over space): unmoved mover
- Causation (change over time): uncaused cause
- Possibility and Necessity
- Gradation
- Governance

112. Every finite being is...

113. Motion, Causation

- Change
 - Motion is change over space
 - Causation is change over time
- Every motion requires some external force
- Every *effect* requires a cause
- No infinite regress
 - If no unmoved mover no 2nd (or 3rd or...) mover
 - If no first cause, no intermediate causes
- There must be an “uncaused cause” and “unmoved mover”

114. Possibility and Necessity

- Two classes of being
- No absolute nothing
 - If no space = no motion
 - If no time = no change
 - → “Nothing” would always exist
- Always had to be something;
- ...and this **some-thing** must be necessary
 - (if *possible* [=contingent], then it might not have been)

115. Gradation or Scales

- “More”/“less” implies highest degree
 - The standard causes all things of “that kind”: e.g., “Truth” causes “true” things
 - A “more” true thing has more of the reality of “truth” than a “less” true thing
- Being (to exist) is a perfection
- God is the cause of all perfections

116. “more Beautiful”?

117.

118. Governance

- Non-intelligent beings work for an **end**
 - → “teleological” argument
- Must be a purpose directing them to that end
 - They are not directing themselves
 - Implies intelligence, purpose, plan which is directing the order
- Order and design

119. The argument from “design”

- Modern revision of Aquinas’ argument from “governance”
- Aquinas’ argument: “organic”
- Design argument: “mechanical”
- David Hume’s argument *against* the teleological argument
- William Paley’s response

120. Interlude

- Contemporary Scientific for Design

121. “Fermi’s Paradox”

- Extraterrestrial life should exist
 - Billions of stars in our galaxy are older than our sun
 - Life develops under favorable conditions
- If extraterrestrial life exists, they should be here by now
 - Need to explore: dying stars & exhausted resources
- Should only take 5 million years for *one group* to reach every star system in Milky Way
 - Assume speed of 10% speed of light and 400 years between migrations
 - If we assume self-destruction, then *every one of them* would have had to self-destruct

122. Jupiter & the Moon

- Jupiter as “cosmic vacuum sweeper”
 - If too close to star, would eject smaller planets
- Moon
 - Unusually large mass helps to fix earth’s orbit & stabilize climate
 - Production of earth’s moon may have been “one-in-a-million shot”
 - Right size “bullet”
 - Right point
 - Right angle blow
 - Had to hit at right point in earth’s development

123. Galactic and Planetary Location

- Too *far* out in galaxy: lower in heavy elements
 - Need rocky planet for life
- Too *close to center* of galaxy: lethal radiation and greater likelihood of supernovas
- “Goldilocks zone”: earth is neither too hot nor too cold
 - Yet Mars (Venus?) is within this zone

124.

125. Crust and Sun Warm-up

- Radioactivity generates heat and magnetic field
 - Holds atmosphere
- Two kinds of crust
 - One must slide over other
 - One must be light to be above water
- Right moment in solar warm-up
 - Too early might have been destructive to life
 - As earth became cooler, sun warmed up

126. Uniqueness of human intelligence

- If intelligence is driven by natural selection, should be other intelligent species
- Evolution of intelligence on earth based on several “unpredictable” events
 - Cambrian “explosion” 540 million bp
 - modern body plans from very beginning
 - Asteroid’s destruction of dinosaurs and rise of mammals (had to be big enough but not too big)

127. “Million Dollar Lottery”

- “On Earth, a long sequence of improbable events transpired in just the right way to bring forth our existence, as if we had won a million-dollar lottery a million times in a row.” (Robert Naeye, editor of *Astronomy*)

128. David Hume

- Does the “end” of the universe prove a “creator” who put the “means” together?
- “Dialogue”: A pretend conversation
 - Demea: orthodox Christian (Revelation, not reason)
 - Cleanthes: reason (“deist”)
 - Philo: skeptic \approx Hume
- “Empirical [=sense data] criterion of meaning”

129.

130. The teleological argument according to Hume

- Cleanthes
- The “means” are “adapted” to the “ends”
 - A divine mind must have caused the world
 - A posteriori analogy
- Just as humans design machines for an end, so god has “designed” the world

131. Hume’s Major Points

- Cause-effect relationships don’t prove a God is the cause of the world (the effect)
- Order is not design
- Matter doesn’t need a cause
- Order is in the mind (and not in “things”)
- We don’t know

132. Cause-effect relationships

- Cause effect relationships based on experience (241)
- Cases must be “exactly similar” to apply “past observation” (241)
- Analogical reasoning is weaker, the less the cases have in common
- However, the origin of the universe is unique

133. Order is not design

- Lack “experience” of relationship in nature at large
- Connection between order and design in human activities does not prove connection in the universe as a whole

134. Matter and Order

- Matter may cause itself
 - Infinite cause effect relationships within nature
 - There may be an unknown cause
- Order is in the mind
 - We impose order on the universe
 - Is belief in reason an “illusion”?

135. We don’t know

- Nature is too “diverse” to draw any analogy about its origin
 - Cannot argue from end to origin
 - Cannot argue from part to whole
- “I don’t know”

136. The Teleological Argument, Revised

- William Paley
- If we find a watch, whose “several parts are ... put together for a purpose,” we assume a maker
- Someone/thing had a purpose, which it achieved in making the watch

137. Paley argued that...

- The knowledge that there is some design is not disproved by ...
- The existence of design is not explained by...
- What would it show if it was discovered that the design could reproduce itself?

138. There is some design

- (1.) Just because we don't know the identity or nature of the designer
- (2.) Just because the design is not perfect
- (3.) Just because some parts are superfluous, or cease to work
- 253-4: an imperfect artist exists

139. Don't explain knowledge of design (249-50)

- (4.) Different combinations of matter
- (5.) An abstract principle of order
- (6.) An act of the mind
- (7.) Some natural law
- (8.) An appeal to ignorance
- (a human construct)

140. A self-reproductive design:

- ...is even more complex
 - ...requires a designer even more
- A self-reproducing watch is not a maker in the same sense as the original artisan
 - An "arrangement" must be explained
- Infinite regression will not get us to a designer (252)
- Design in nature is infinitely greater