

Introduction to Philosophy

Philosophy 110W-03

Russell Marcus

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Starting Epistemology: Descartes

I. Epistemology

The theory of knowledge

- What do you know?

II. Descartes, the new science, and scriptural circularity

- Descartes wants something firm and lasting in the sciences.
- What is science?
- All legitimate knowledge?
- Just physics?
- Accommodating the new science of Galileo and Newton.
- Eliminate some false medieval dogmas

The old science

- Aristotle: the heavens are constant, Earth is at the center of the universe, and causes are (partially) explained teleologically, by purposes.
- Ptolemy: the sky is a roof on the Earth, the heavens contain starry perfect spheres (stars and planets) which revolve in perfect circles around the Earth, there are two kinds of motion.
- On Earth, motion is linear; in the heavens it is circular.

The new science

- Aristotelian/Ptolemaic dogmas were accepted through medieval times.
- The new science of the 16th and 17th centuries called them into question.
- Plus, direct attacks on religion, and its role in medieval thought.
- Rise of the individual against (Earthly) central authority, in the guise of humanism, and natural reason.
- Skepticism in philosophy became increasingly popular.

Scriptural circularity

From the letter of dedication of the *Meditations*.

- I have always been of the opinion that the two questions respecting God and the Soul were chief among those that ought to be determined by help of Philosophy rather than of Theology; for although to us, the faithful, it is sufficient to hold as matters of faith that the human soul does not perish with the body and that God exists, it seems impossible to persuade unbelievers of any religion, or even of almost any moral virtue, until these two things are proved to them by natural reason. And since in this life there are frequently greater rewards held out to vice than to virtue, few would prefer the right to the useful, if they neither feared God nor anticipated an afterlife; and although it is quite true that the existence of God is to be believed since it is taught in the sacred Scriptures, and that, on the other hand, the sacred Scriptures are to be believed because they come from God (for since faith is a gift of God, the same Being who bestows grace to enable us to believe other things, can likewise impart of it to enable us to believe his own existence), nevertheless, this reasoning cannot be proposed to unbelievers, who would judge it to be circular. (AT 1-2)

Scriptural circularity, II

- Why believe that God exists? Because it says so in the Bible.
- Why believe that the Bible is true? Because God wrote it.
- Compare: Why believe that the crystal ball tells the truth? Because the crystal ball tells you to.

III. Doubt and denial

- Descartes is seeking certainty for the new science, and for religious beliefs, by way of doubt.
- He will doubt everything, and then only affirm those beliefs of which he is sure.
- ‘Basket of rotten apples’ metaphor
- ‘I doubt that p’ means that I do not know whether p is true or false.
- ‘I deny that p’ is an assertion of the falsity of p.
- Descartes provides three arguments for doubt.

IV. Knowledge vs belief

- Person A: I know that the sun revolves around the earth.
- Person B: I believe that the sun revolves around the earth.
- What happens when we find out that the earth revolves around the sun?
- A recants.
- B maintains his claim.
- You can not have false knowledge, but you can have a false belief.
- Knowledge is a success term; belief is not a success term.

JTB and certainty

- Traditionally, philosophers have taken knowledge to be, approximately, justified true belief (JTB).
- We will not spend time on the characterization of knowledge as JTB, see Edmund Gettier, p 161.
- Another characterization: knowledge as certainty
- If I know p, I can not doubt it.

The KK thesis:

KK: In order to know p , you must know that you know p .

- Is the KK thesis true?
- What Is the capital of Illinois?
- There may be cases in which you know that p , but you do not know that you know that p .
- Put the contentious claim that the KK thesis is false aside.
- Descartes seems to hold the KK thesis, has a pretty high standard for knowledge.
- A bit more lingo...

V. Two varieties of epistemology

- Read MI through “from the senses or through the senses”, p 102.
- What is the difference?
- Descartes seems to be making a distinction between knowledge which comes directly from experience, like knowing that it is hot outside, and knowledge which requires reasoning in addition to sense experience
- There are at least two possible answers to the question of how we know what we know.

Empiricism

All knowledge comes from the senses only.

- All our knowledge somehow traces back to sensory experience.
- All knowledge is a posteriori.
- Intuitively very plausible, since our senses seem to be the source of all of our beliefs.
- Difficult to reconcile with our knowledge of mathematics.
- Some statements, like 'bachelors are unmarried', do not seem to depend on sense experience for their justification.
- Locke, Berkeley, and Hume all held varieties of empiricism.

Rationalism

Some knowledge comes from reason, or pure thought, in addition to that which comes from the senses.

- Some knowledge is independent of sense experience.
- Some knowledge is a priori.
- Logical and mathematical beliefs are often taken to be justified a priori.
- So are our beliefs in sentences like the one about the bachelors.
- Descartes and Anselm held varieties of rationalism.
- Kant?

Descartes's rationalism

- Cleaving thought from sensation.
- A priori beliefs are innate in our minds.
- Let's dump the apples.

VI. Illusion: the first argument for doubt

- Consider optical, or other sensory, illusions, or hallucinations.
- These call into question our beliefs about distant or ill-perceived objects, perhaps very small ones.
- The square building may look round from afar.
- But our knowledge of close objects, like our own bodies remains.
- We may doubt specific properties of physical objects.
- We need a stronger doubt.

VII. Dreams: the second argument for doubt

- If we are dreaming, our beliefs which rely on our senses are called into doubt.
- There are three questions here:
 - ▶ A. Is there any way of distinguishing waking from dreaming experience?
 - ▶ B. What beliefs does the possibility of our dreaming eliminate?
 - ▶ C. Is there anything of which we can be sure, even if we are dreaming?

Question A: Is there any way of distinguishing waking from dreaming experience?

- There is no obvious mark to distinguish waking from dreaming.
- Anything we can do when we are awake, we can dream we are doing.
- We might be able to know that some state was a dream.
- But we can not be sure that our current state, if it has no obvious dreamlike qualities, is a waking state.
- If we can not be sure that we are not dreaming, then we can not be sure of anything our senses tell us.

Question B: What beliefs does the possibility of our dreaming eliminate?

- If we are really sentient machines, dreaming about people, there may be no people.
- We could have just invented them.
- The machines need designers and constructors, of course, but these need not be people.
- We can fantasize entirely novel objects, so we can not be sure that the objects in our dreams exist.
- One might think that some objects have to exist, but we could be just disembodied minds.

Question C: Is there anything of which we can be sure, even if we are dreaming?

- Mathematical beliefs?
- The universals from which objects are constructed, the properties of objects, remain, as well.
- These are what Descartes calls simple and universal.
- For example: color, shape, quantity, place, time.
- Descartes calls these the building blocks of the empirical world.
- Mathematics and logic, too, deal with objects most generally.
- Even if I am dreaming, colors exist, bachelors are unmarried, and $2+2=4$.

VIII. Necessity and contingency

Among the true statements, there is a further distinction.

- If a statement could not be false, we call it necessary.
- 'Bachelors are unmarried' and ' $2+2=4$ ' seem to be necessary truths.
- If a statement can be either true or false, we call it contingent.
- 'Today is Tuesday' and 'I am wearing an orange shirt' seem to be contingent truths.
- We can easily imagine ways in which a contingent truth could have been false.
- The only way to make a necessary sentence false would be to change the meanings of its terms.
- If we hold the meanings of the terms constant, then statements such as 'bachelors are unmarried' and ' $2+2=4$ ' express necessary truths.
- The dream argument seems to call into doubt contingent truths, but not necessary ones.

IX. The deceiver

What if there is a powerful deceiver who can place thoughts directly into our minds?

- We need not worry about whether this deceiver is God, or a demigod, or a demon.
- Neither need we assert the existence of a deceiver or a God.
- All we need is to imagine the possibility of a deceiver, which is easy enough to do.
- In *Matrix*, brain-in-a-vat hypotheses, there is a physical reality, but it is unlike the one we perceive.
- The deceiver hypothesis is consistent with the nonexistence of the physical world.
- We could be disembodied minds.

X. Three classes of beliefs

Each of the three arguments for doubt corresponds to a set of beliefs eliminable on the basis of that doubt.

- Class I: Beliefs about the sensory nature of specific physical objects, or the existence of distant or illperceived objects.
- Class II: Beliefs about the existence and nature of specific physical objects, and the physical world generally.
- Class III: Beliefs about universals, like color, and shape, the building blocks of physical objects; and about space and time.
 - ▶ Beliefs about numbers, and geometrical entities.
 - ▶ Beliefs about logical and semantic truths.

XI. The starting point

- Archimedes and the lever, p 104.
- One belief resists doubt.
- I am, I exist must be true whenever I am thinking, pp 104-5.

Not the cogito

- 1. Whatever thinks, exists.
- 2. I think.
- So, I exist.

The cogito

- A pure intuition
- It establishes the existence of a thinker, as long as the thinker thinks.
- I am a thinking thing, a thing that doubts, understands, affirms, denies, wills, refuses, imagines, and senses.

XII. After the cogito

- Descartes concludes that he is a thinking thing.
- What can he learn from these thoughts?
- These thoughts may not tell him anything true about the world outside of him.
- But even if the thoughts are false, they still appear to Descartes.
- Even if there is no table, we still seem to sense the table, in a privileged and infeasible way.
- Note the distinction between sensing and seeming to sense.
- Ideas can not be false, considered only as images in our minds.
- We can get certainty about our beliefs, but only inside our minds, and not of the outside world.

Descartes is stuck!

- Descartes has started to rebuild his knowledge, but he is stuck with just the cogito.
- The cogito only tells him that he is a thinking thing, a thing that doubts, understands, affirms, denies, wills, refuses, imagines, and senses.
- Thus, Descartes in the second meditation, looks a lot like the skeptic he is trying to defeat.

XIII. Foundationalism

- Compare Descartes's method to the methods used in axiomatic sciences, like geometry.
- In geometry, we start with two elements:
 - ▶ 1. Basic axioms, or undisputable truths; and
 - ▶ 2. Rules of inference which allow us to generate further theorems on the basis of already established ones.
- With just these, we have a foundational system for geometry.
- There are simpler formalized systems, with a restricted, specialized language.

XIV. The MIU system

- Any string of Ms Is and Us is a string of the MIU system.
- MIU, UMI, and MMMUMUUUMUMMU are all strings.
- Similarly, any declarative sentence in English corresponds to the strings of a formal system.
 - ▶ In English, we may be interested in only the true sentences.
 - ▶ In the MIU system, we will only be interested in theorems.

Axioms and theorems

- A theorem is any string which is either an axiom, or follows from the axioms by using some combination of the rules of inference.
- The MIU system takes only one axiom: MI.
- This means that MI is our foundational truth, as the cogito is the foundation for Descartes's epistemology.

Four rules of inference:

- R1. If a string ends in I you can add U.
- R2. From Mx , you can infer Mxx .
 - That is, you can repeat whatever follows an M.
- R3. If III appears in that order, then you can replace the three Is with a U
- R4. UU can be dropped from any theorem.

Some theorems of MIU:

- 1. MI Axiom
- 2. MIU From Step 1 and R1
- 3. MII 1, R2
- 4. MIII 3, R2
- 5. MIU 4, R3
- 6. MUI 4, R3
- 7. MIIIIIIII 4, R2
- 8. MIUUI 7, R3
- 9. MII 8, R4
- etc.

Derive MU.

- For help, see Hofstadter's book, pp 259-261.
- Do not spend too much time on this puzzle without consulting Hofstadter, who provides helpful hints!

XV. Descartes's rule

- The goal of the Meditations was to achieve certainty through doubt.
- If we want certain knowledge, we have to know that we know what we know.
- We need some kind of mark, or rule, which enables us to separate true knowledge from mere belief.
- Such a rule will serve the same purposes as a rule of inference in a formal system.
- It will allow us to proceed.
- We only know one thing, so far: the cogito.
- Descartes discovers his rule by examining his first piece of knowledge, the cogito.

Clear and distinct ideas

Descartes calls his criteria for knowledge clarity and distinctness, p 109.

- What could these terms mean?
- Something is clear when it is present and apparent to an attentive mind, in the same way as we assert that we see objects clearly when, being present to the regarding eye, they operate upon it with sufficient strength (Descartes, *Principles of Philosophy*, AT VIII:21-22).
- Note Descartes's metaphoric use of perception.
- Without such a mark, all searching for certainty is useless.

Cartesian circularity

- Given any mark, or rule, for certainty, how do we know that we have the correct mark?
- Appeal to the mark itself is circular.
- We can not say that we clearly and distinctly perceive that clarity and distinctness is the right criterion.
- Descartes's approach involves appealing to God as a protector of the criterion.
- It seems that Descartes has replaced the problem of scriptural circularity with a new problem of Cartesian circularity.
- The cogito does seem to contain some kind of undoubtable truth.
- But, it is unclear how we can adapt that mark to serve as a rule.
- We will return to this problem of establishing foundations with Moore.

XVI. Descartes and the wax

The origins of false beliefs.

- How did we think we knew about physical objects?
- Obviously, through our senses.
- See p 108, the end of the Second Meditation.
- This is the conclusion of a discussion about a ball of wax.

The wax

Consider a ball of wax in two distinct states.

- First, when it is cold, hard, yellow, honey-flavored, and flower-scented.
- Then, bring it near a flame.
- The wax now becomes hot and liquid, and loses its color, taste (although it now will burn your tongue), and odor.
- We have images of the wax, in several incompatible states.

Imagination

- The imagination is our capacity for sensory images.
- Distinguish this from another mental capacity, that of judging.
- We can distinguish these from other capacities of the mind, such as willing and refusing, and emotions, like happiness.
- We do not have an image of the essence of the wax, or of wax in general.

The argument that knowledge of physical objects comes from the mind alone

1. Knowledge must be certain (firm and lasting).
2. What we get from the senses is uncertain.
3. So our senses do not give us knowledge.
4. We do have knowledge about the wax.

So, our knowledge of physical objects must come from the mind alone.

XVII. An aside on Heraclitus

Descartes claims that we have knowledge of one object, the wax, in two different forms.

- “Does the same wax remain after this change? We must confess that it remains; none would judge otherwise” (107).
- Descartes here omits a view on which any change in the properties of an object entail a change in the object.
- Heraclitus said that one can never step in the same river twice.
- By extension, since our constitution is always changing, we are different people at different times.
- And the wax is different before and after.
- This view, though, will not get Descartes any firm and lasting knowledge.

XVIII. Strong and weak claims about the role of the senses in knowledge

- Weak claim: the senses are insufficient for knowledge.
 - On the weak claim, we use the senses to gather information, and in conjunction with reasoning, which is purely mental, we arrive at knowledge.
 - The weak claim is fairly uncontroversial.
 - We seem to have some ability beyond the senses which helps us know about the wax.
- Strong claim: the senses are irrelevant to knowledge.
 - Descartes says that knowledge of physical objects comes from the intellect (or mind) alone.
- While the weaker claim is more plausible, Descartes's point is that any information we get from the senses does not rise to the level of knowledge.
- We can believe that the chair is blue, but we can never know this, since this is a sensory belief.
- Further, we know that the wax can take more forms than we could possibly imagine: more shapes, more sizes, etc.
- So, this knowledge must go beyond anything that could come from the senses.

Descartes and the strong claim

- We seem to have two different types of beliefs about the wax.
- First, that it has a particular shape.
- This first idea is sensory.
- But it is not knowledge.
- The second belief is that it can take on innumerable many different forms.
- This is not a sensory belief.
- And it is knowledge.
- It is what Descartes calls innate.
- Descartes truly holds the stronger claim.

XIX. The nature of physical objects

- The wax is just a body which can take various manifestations, hot or cold, sweet or tasteless, etc., but is identified with none of these particular sensory qualities, p 107.
- It is essentially something which can have sensory qualities, but which need not have any particular ones.
- The wax is only extended, flexible, and movable, p 107.
- The same object may have many different appearances.
- Boyle, Galileo, Newton, and Locke
- Berkeley disagrees.

XX. An aside on the mind/body thesis:

- We will return to the end of the *Meditations* when we look at the philosophy of mind.
- For now, I just want to note that the title of the second meditation asserts that the mind is known better than the body.
- Even if we do not know about bodies, yet, we can make some conclusions about our minds.
- All of these reflections just bring us back to the mind, and improve our understanding of it.

XXI. The resemblance hypothesis

- It seems that the source of some of my errors is in believing that sensory experience leads to knowledge.
- The resemblance hypothesis says that my ideas of objects resemble those objects.
- Descartes rejects the resemblance hypothesis, p 109.
- Locke defends the resemblance hypothesis.
- Berkeley does too, in an unexpected way.
- It is natural to take our ideas of objects, and the world in general, as resembling, as being like, the world as it is in itself.
- But, the ideas which really tell us about the nature of the world are the ones which are not directly derived from sensory experience.

Against the resemblance hypothesis

- Descartes provides the example of the sun, not reprinted in Cahn
- I find in my mind two distinct ideas of the sun. One, by which it appears to me extremely small, draws its origin from the senses... The other, by which it seems to be many times larger than the whole earth, is... elicited from certain notions born with me, or is fashioned by myself in some other manner. These two ideas cannot both resemble the same sun; and reason teaches me that the one which seems to have immediately emanated from the sun itself is the one that least resembles the sun. (AT 39)
- Notice that the argument against the resemblance hypothesis are independent of the three doubts.
- We would have this problem even if the exaggerated doubts were absent.

XXII. Solipsism

Descartes is confused at the end of our selection.

- He has arrived at a solipsistic barrier.
- Solipsism is the thesis that only I exist.
- Knowledge of the cogito seems to lead us to knowledge of mathematics.
- But the possibility of the deceiver led us to reject mathematics.

Summary

- We saw that Descartes cited the resemblance hypothesis as a source of his errors.
- So, now we have reasons to keep the rotten apples out of the basket: the three doubts.
- We have criteria for putting good apples back into the basket: the criterion for certainty, clear and distinct perception.
- And we also have a criterion for recognizing bad apples: reliance on the resemblance hypothesis.
- Instead of relying on our senses, we should rely on our innate ideas.
- All, but only, the Class III beliefs are innate.
- Beliefs of Classes I and II are infected with problems of the resemblance hypothesis.