

Class 6 - February 4
Hobbes, from *Leviathan*

I. Monism and the problem of interaction

The second section of our syllabus consists of readings from the master works of two monists: Thomas Hobbes and Baruch (Benedict) Spinoza.

Monism is motivated largely by the problem of interaction in the theory of mind.

The problem of interaction is to describe how our bodies and minds could interact, if they were indeed, as Descartes argues, two independent substances.

Our bodies affect our minds; our minds affect our bodies.

But, if they are independent substances, it is hard to see how they could do so.

Gilbert Ryle, defending physical behaviorism about the mind in the twentieth century, accused Descartes of having to rely on “theoretical shuttlecocks” to transfer information from one domain to the other.

Or, to put the problem in a Hamilton-appropriate way: Why does the mind get drunk when the body does the drinking?

For a substance dualist, like Descartes, the problem of interaction appears, to some, to be intractable.

In order to focus the question, Descartes posited that interactions between the mind and body take place in one particular place in the human body, the seat of the soul.

Descartes located the seat of the soul in the pineal gland.

I have scanned a copy of [a letter Descartes wrote about the pineal gland](#).

Descartes’ position, that the pineal gland is the location where the soul interacts with the body, does not solve the problem of interaction.

It merely locates the problem.

We could understand, for example, how a computer chip placed in or near our brain might control us, if, say, we were being externally directed by our alien masters.

In such a case, the interaction between the controlling chip and our bodies would be purely physical.

If the controller were not any kind of physical object, it is difficult to see how it could have any effects on physical objects.

One way to solve the problem of interaction is to deny the claim that the mind and body are distinct substances (i.e dualism).

There are two obvious monist options.

The materialist claims that the mind is really just the body.

Hobbes is a materialist monist.

The world (I mean not the earth only, that denominates the lovers of it *worldly men*, but the *universe*, that is, the whole mass of all things that are) is corporeal, that is to say, body, and has the dimensions of magnitude, namely, length, breadth, and depth. Also every part of body is likewise body, and has the like dimensions, and consequently every part of the universe is body; and that which is not body is no part of the universe. And because the universe is all, that which is no part of it is nothing, and consequently nowhere (*Leviathan* §I.46, AW 133b).

In contrast, the idealist claims that there are no bodies; there are only minds.

Berkeley is an idealist monist.

Spinoza is a weirdo monist.

For Spinoza, there is only one substance, which he calls God.

You might prefer to think of that one substance as nature, or Nature.

Spinoza's one substance, God, has many attributes, both mind and body (and others!).

So, there is just one kind of thing (monism), but it has many aspects (weirdo).

Thinking about Hobbes and Spinoza as being motivated by the problem of interaction is not a bad way to start reading them.

But, candidly, I am not convinced that the problem of interaction is as intractable as people take it to be.

The problem of interaction seems to require magic for its solution, which appears to debar a solution.

But positing the soul in the first place already commits you to a kind of magic.

Once you are committed to magic, the problem of interaction just requires more magic.

The problem seems to be with the dualism, not with explaining the interaction between the body and mind.

Either way, it would be useful to find a non-dualist alternative to Descartes's metaphysics, which is why we turn to Hobbes (today) and Spinoza (next week).

II. Hobbes's Materialism

Depicting the materialist as claiming that there are no minds, as I just did, may be a bit misleading.

The materialist's claim is really that what we normally think of as a mind can be explained on the basis of matter: the mind is the brain, approximately.

Still, Hobbes's claim is definitely a rejection of Descartes's substance dualism.

(Hobbes wrote the hostile, and not very good, third set of objections to Descartes' *Meditations*.)

The challenge for any materialist is to account for mental phenomena, especially mental causation.

While my conscious states may not be thought of as real qualities of external objects, they are real qualities of my conscious mind.

Further, they seem to have some effect on my actions.

If I am in pain, I will act in ways that I will not act if I am not in pain.

But mental states, like pain, seem to resist physical explanation; it is private and privileged.

Hobbes's solution to the problem of mental causation consists in his insistence that mental phenomena are motions in the nerves and brain, paradigmatic physical phenomena.

He holds fast to the core idea of the new, Galilean science, that all that exists are particles in motion.

According to the new science, interactions of particles are limited to transfer of momentum.

So, nothing could be given to us by external objects, except their motions.

The cause of sense is the external body, or object, which presses the organ proper to each sense, either immediately, as in taste and touch, or mediately, as in seeing, hearing, and smelling; this pressure, by the mediation of nerves and other strings and membranes of the body, continues inwards to the brain and heart, causes there a resistance, or counterpressure, or endeavor of the heart, to deliver itself; this endeavor, because *outward*, seems to be some matter without. And this *seeming*, or, *fancy*, is that which men call *sense*... All...qualities called *sensible* are in the object that causes them but so many several motions of the matter, by which it presses our organs diversely. Neither in us that are pressed are they anything else but diverse motions (**for motion produces nothing but motion**) (*Leviathan* §I.1, AW 116; bold emphasis added).

It is a fundamental principle of the new science that objects as we experience them may be very different from how they are in themselves.

Descartes, rejecting the resemblance hypothesis, argued that 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.

Elsewhere, Descartes says that sound is, “Nothing but a certain vibration of the air which strikes our ears” (*Le Monde*, AT XI.6).

That is, physical objects are essentially extended things, made of parts which may or may not be in motion, both together and relative to each other.

Depending on how its parts, the atoms, unite and move, an object affects us in different ways.

Their arrangement, along with our sensory apparatus, determines how we experience an object.

The same object may have many different appearances.

The arrangement of particles in a lemon makes the light reflect from its surface so that I have a yellow experience.

Another person, or an alien with a radically different sense apparatus, would have different visual sensations of the same object.

My conscious experience is unlike the lemon in itself.

If my experience of sound really resembled the sound, then I would hear motion, not music.

Hobbes embraces this fundamental principle, which becomes known as the veil of perception, ascribing a profound error to those, like Aristotle, who hold a resemblance hypothesis.

The third [cause of absurd assertions] I ascribe to the giving of the names of the *accidents* of *bodies without us* to the *accidents* of our *own bodies*; as they do who say the *color is in the body*; the *sound is in the air*, etc. (*Leviathan* §I.5, AW 127b)

Descartes believed that physical objects have extension as their essence.

Extension is mathematically describable, as is motion.

The mathematical nature of both extension and motion were essential to the Galilean view of the world.

Philosophy is written in this grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend the language and read the letters in which it is composed. It is written in the language of mathematics, and its characters are triangles, circles, and other geometric figures without which it is humanly impossible to understand a single word of it; without these, one wanders about in a dark labyrinth (*Galileo, The Assayer*).

Similarly, Descartes writes that the only principles he needs are mathematical.

The only principles which I accept, or require, in physics are those of geometry and pure mathematics; these principles explain all natural phenomena, and enable us to provide quite certain demonstrations regarding them (*Principles of Philosophy* II.64).

Thus, extension and motion are real properties of physical objects; sense properties are unreal.

‘Nominalism’ refers to the claim that some words are merely names and do not denote real objects or properties.

We are all nominalists about fictional objects, like the Tooth Fairy.

Some people are nominalists about numbers.

Galileo, Descartes, and Hobbes are nominalists about sense properties, what Descartes calls the content of our imagination, and what Hobbes calls fancies.

The distinction between the real properties of a physical object and how the object appears through our senses is sometimes called the primary/secondary distinction.

Locke argues for a primary/secondary distinction, as we will see later in the term.

Berkeley rejects the primary/secondary distinction, as we will also see later.

Descartes' discussion of the wax is an argument for the primary/secondary distinction.

Galileo argues for the distinction on analogy with a feather.

No one thinks that the tickle is in the feather.

Similarly, we should not think that the color, or odor, or taste, or heat, is in the object which we perceive as colored, odored, tasty, or hot.

Descartes argues, in *Le Monde*, from analogy with words.

A word, like 'Rene', can make us think of something that is nothing like a word, like Rene.

Similarly, sensations, like my conscious experience of red, can make me think of something, like an apple.

But, there is no need to think that the apple resembles my conscious experience of red.

There is something in the apple that makes me see it as red.

We might call this a dispositional property.

A dispositional property is nothing more than a particular arrangements of particles.

There is nothing in the apple that resembles my sensation of red.

Consider the stars and candle of the Sixth Meditation; we should not confuse the appearance of size with the scientist's evaluation of extension.

Hobbes agrees that sensible properties are the result of interactions between our bodies and other bodies.

They are not, as Aristotle had alleged, real properties of external objects.

They are not, as Aristotle would have, the result of our senses being changed to match the object.

Physical objects are just particles in motion, and they can communicate this motion to us.

Hobbes's metaphysics, then, is essentially Galilean: the world consists of particles, or atoms, in motion.

Before moving on, I will just mention that contemporary theories of perception are consistent with this claim that the impingement of our retinas by light causes us to see.

But, for both the moderns and the contemporary neuroscientist, we lack an explanation of the connection between my conscious experience and its cause.

Why is it that such and such motions in the air cause me to hear a symphony?

Why is it that certain wavelengths of light cause me to see blue?

These are questions to which we still lack satisfying answers.

III. Hobbes against Descartes

Given the Galilean view of the world, to account for our conscious experience, like yellowness or pain or the pleasing strains of a Bach concerto, Descartes posits a non-physical mind.

Descartes thus gets to have the Galilean view of the world while not giving up the reality of our sense experience.

The cost, of course, is substance dualism and the problem of interaction.

Hobbes, in contrast, denies that we must posit a non-physical substance to account for conscious experience.

Our conscious experience just is the motion of particles.

Hobbes's claim sounds almost impossible to take seriously: how could the sound of the concerto just be the motion of air, or the vibration of the tympanic membrane?

What could be more different than motion of air and sound?

Still, putting that worry aside, for occurrent sensory states, we might favor Hobbes's materialism over Descartes's dualism, if only on Ockhamist grounds.

Hobbes only posits one kind of thing, whereas Descartes posits two.

William of Okham (1287-1347) encouraged philosophers not to multiply entities beyond necessity.

So, Hobbes' account of the sensory states I have right now seems ontologically preferable just for being less profligate.

When we consider memory and fantasy, Hobbes's account of mental phenomena is less compelling. Hobbes must account for mental states which are not obviously caused by transfers of momentum from objects to our senses, as when we are thinking about something that happened yesterday, or ten years ago. Besides our faculties of memory and fantasy, Hobbes also needs to account for our ability to deduce new ideas by reasoning.

We can derive new theorems in mathematics, infer laws of physics, and, more simply, make common deductions about the world around us.

The challenge for Hobbes' materialism is to provide an account of human reasoning which does not rely on an independent, thinking substance.

Hobbes responds to the challenge by relying on the [Galilean/Newtonian concept of inertia](#).

Once our ideas are set in motion by sensation, once they enter our imagination, they remain in motion.

The physical effects of our sense experience, fancies, continue, in our brains, slowing down only when impeded by other fancies.

We associate ideas as we experienced them, remembering a sequence as we first sensed it.

Memory, which is just imagination in time, fades as we accrue more experiences.

Occurrent sensory images drown out the former ideas, as the sun obscures the distant stars.

So, Hobbes accounts for memory on the basis of the remaining inert, yet obscured, motion of particles in the body.

All fancies are motions within us, relics of those made in the sense, and those motions that immediately succeeded one another in the sense, continue also together after sense, inasmuch as the former coming again to take place and be predominant, the latter follows, by coherence of the matter moved, in such manner as water upon a plain table is drawn which way any one part of it is guided by the finger (*Leviathan* §I.3, AW 119b).

To account for ideas of fantasy, Hobbes says that we can recombine parts of different memories (as of a horse and a bird), to create new images (as of a flying horse).

The passive succession of thoughts is controlled by our external experience.

Our active control of thoughts, as we seek causes and effects, is guided by our will.

Notice that Hobbes provides a scientifically testable theory, a research program.

Consider:

The longer the time is, after the sight or sense of any object, the weaker is the imagination (*Leviathan* §I.3, AW 117b)."

We could test this claim, in a way that much of Descartes's work appears untestable.

Against Hobbes, while it is true that our memories fade, it does not seem that they do so in proportion to time, alone.

My memory of a minor event yesterday is no more faint than my memory of an important event which occurred years ago.

Still, no one really understands how memory works.

Another problem for Hobbes's scientific account involves the effect of our interests in our perception. We do not see just a visual manifold.

Rather, we pick out items based on our desires and preconceptions.

Consider the phenomenon of [attention blindness](#).

Even if we accept Hobbes's accounts of memory and fantasy, it is hard to see how that account could lead to a full Cartesian account of reasoning.

Perhaps Descartes overemphasized the clarity of reasoning.

Still, all that Hobbes gives us is an account by which images which were together when originally sensed remain together in memory.

Hobbes is wrong about many of his empirical claims.

The metaphor of water on a table is evocative, but not very convincing.

Hobbes is working with a naive psychology.

But his work is important because it is a precedent for precisely the kind of theory that scientists want.

IV. Hobbes's Empiricism

We have been looking at Hobbes's metaphysics, and his philosophy of mind.

But, we started with an epistemological problem, the problem of interaction.

Hobbes's work is not merely motivated by the desire to avoid substance dualism.

He believes that much of the medieval, scholastic philosophy, as well as Descartes's work, was nonsensical.

For Descartes, ideas of the self, God, and mathematics are innate, built into our minds.

Laws of physics, depending on mathematics, are also innate, the result of pure, intellectual judgment.

Descartes and Hobbes both defended the new science and its method of experimentation.

The new science posits a world of material objects, which we think of through use of the imagination.

For Descartes, though, these images are confused; the only real properties are those we can understand by pure reason, through innate ideas.

Hobbes is the first of our empiricists.

Like Locke and Berkeley later, he wants to derive or explain all knowledge by sense experience, avoiding Descartes's innate ideas.

He defines truth and falsity in terms of the correspondence of language to the world.

Terms of language stand for our ideas, the images left by sense experience in our brains.

The discussion of language, and trains of thought, in §3 and §4 emphasizes the strict connection between science, the result of connecting our ideas, and sense experience.

Hobbes distinguishes between error and absurdity, and accuses philosophers like Descartes of absurdity arising from using words with no origins in the senses, AW 127-8.

We have already looked at one of those errors, ascribing a sense property to an external object.

More importantly, for Hobbes, the concept of an incorporeal body, like a spirit or angel, arises from a misuse of words.

His criticism, in §46, of separated essences is related.

Whether Hobbes was an atheist is a much-debated question.

Certainly, his materialism makes any theism he might hold odd; God would have to be a material object. (Though, a material deity seems consistent with his discussion of spirits in §34.)

While he does refer to some religious texts, he also tries to eliminate religion from philosophy.

Thus philosophy excludes from itself theology, as I call the doctrine about the nature and attributes of the eternal, ungenerable, and incomprehensible God, and in whom no composition and no division can be established and no generation can be understood (*De Corpore*, §1.8).

Religion aside, Hobbes clearly wants to rid philosophy of obscure concepts, cleaning epistemology, and focusing on the pragmatic benefits.

On the pragmatic side, Hobbes thinks that the goal of language generally, not just philosophy, is human flourishing.

Without words there is no possibility of reckoning of numbers, much less of magnitudes, of swiftness, of force, and other things, the reckonings of which are necessary to the being, or well-being, or mankind (*Leviathan* §1.4, AW 123b).

And,

By PHILOSOPHY is understood *the knowledge acquired by reasoning, from the manner of the generation of anything, to the properties, or from the properties to some possible way of generation of the same, to the end to be able to produce, as far as matter and human force permit, such effects as human life requires* (*Leviathan* §1.46, AW 132a).

As for cleaning epistemology, not only does Hobbes urge us to rid philosophy of religion, but also of other abstract concepts.

In reasoning a man must take heed of words, which besides the signification of what we imagine of their nature, have a signification also of the nature, disposition, and interest of the speaker - such as are the names of virtues and vices, for one man calls *wisdom* what another calls *fear*; and one *cruelty*, what another *justice*, one *prodigality*, what another *magnanimity*; and one *gravity*, what another *stupidity*, etc. And therefore such names can never be true grounds of any ratiocination. No more can metaphors, and tropes of speech; but these are less dangerous, because they profess their inconstancy, which the others do not (*Leviathan* §1.4, AW 125b)

Similarly, Hobbes rejects metaphysical approaches to science.

In many occasions they put for cause of natural events, their own ignorance, but disguised in other words, as when they say, fortune is the cause of things contingent - that is, of things whereof they know no cause - and as when they attribute many effects to *occult qualities* - that is, qualities not known to them, and therefore also (as they think) to no one else - and to *sympathy*, *antipathy*, *antiperistasis*, *specific qualities*, and other like terms, which signify neither the agent that produces them, nor the operation by which they are produced. If such *metaphysics* and *physics* as this be not *vain philosophy*, there was never any; nor needed St. Paul to give us warning to avoid it (*Leviathan* §1.46, AW 136b).

These revolutionary claims about ridding philosophy of absurdities arising from the misuse of language will recur throughout the modern era; we'll see them again in Berkeley and Hume, especially.

V. Evaluating Hobbes's materialist monism

Hobbes rejects Descartes's opposition of sensing and thinking.

In this way, both Hobbes is a reactionary.

Hobbes wants to return to the materialism of Aristotle, while accommodating the new science.

Hobbes's materialism has parsimony in its favor.

Also, Hobbes provides a plausible account of mental causation: since all mental phenomena are physical phenomena, the laws of mental causation are the same as the laws of physics.

Still, he lacks a convincing scientific account of human reasoning.

Even if Descartes overemphasized the purity of reason, Hobbes's account is anemic.

And, the claim that conscious states are just motions of particles seems nearly incomprehensible.

He seems to neglect the problem that motion is not color.

Why do we see yellow lemons, instead of just extensions in motion?

We might say that the lemon has a 'dispositional property' which makes us see it as yellow.

But the dispositional property is not yellowness, which is, properly speaking, a property only of my experience.

(That claim will be revived in the twentieth century as mind-brain identity theory, or topic-neutral materialism, though, so we should not dismiss it completely.)

One response, one that Locke will take, is to remain mysterian about conscious experience.

On this response, it is equally a mystery why qualia should attach to minds or to bodies.

Berkeley will be unsatisfied with this kind of giving-up on the problem.

He argues that we can resolve the problems by adopting a different kind of monism; but that's for later in the term.

The central problem with Hobbes's account of mental phenomena is that it is tied too closely to an outdated physical theory.

"Hobbes's general account of thought was rather hamstrung by his obsession with mechanics (*Encyclopedia of Philosophy*, vol. IV, p 38)."

Galilean mechanics, on which all force is impact, has been superseded several times, first by Newtonian gravitational theory, then by Einsteinian relativity theory, as well as other mechanical theories.

Perhaps a contemporary materialist could improve on Hobbes's account, and maintain its spirit.

Spinoza is next; here's some advice for reading Spinoza:

The Ethics is difficult, written in the synthetic method; take your time.

Focus on the propositions and the scholia, leaving analysis of the proofs for a second or third reading.

(Here's one of the world's foremost modern-philosophy scholars on Spinoza's proofs: The deductive apparatus masks Spinoza's philosophy. For certain of his deepest and most central doctrines he offers 'demonstrations' that are unsalvageably invalid and of *no philosophical use or interest*; it is not credible that he accepts those doctrines because he thinks they follow from the premisses of those arguments (Jonathan Bennett, *Learning from Six Philosophers*, vol. 1: 113, emphasis added).

And, here's Nietzsche on Spinoza: "Not to speak of that hocus-pocus of mathematical form in which, as if in iron, Spinoza encased and masked his philosophy...so as to strike terror into the heart of any assailant who should happen to glance at that invincible maiden and Pallas Athene - how much personal timidity and vulnerability this masquerade of a sick recluse betrays" (*Beyond Good and Evil*, §5).

And Nietzsche liked Spinoza!

The appendix to Part I, AW 160-4, is worth reading, even if you have to skim some of the later propositions in Part I to get to it.

You might find it useful to substitute 'Nature' for 'God'.

Good luck!