

Class #8 - Monism and Parallelism  
Spinoza, *Ethics*, Part I

0. More Nietzsche on Spinoza

In the previous set of notes, I quoted Nietzsche's harsh criticism of Spinoza's formal style. But I mentioned that Nietzsche loved Spinoza. Here's what I meant:

I am utterly amazed, utterly enchanted. I have a *predecessor*, and what a predecessor! I hardly knew Spinoza: that I should have turned to him just *now* was inspired by "instinct." Not only is his overall tendency like mine - making knowledge the *most powerful* affect - but in five main points of his doctrine I recognize myself; this most unusual and loneliest thinker is closest to me precisely in these matters: he denies the freedom of the will, teleology, the moral world order, the unegoistic, and evil. Even though the divergences are admittedly tremendous, they are due more to the differences in time, culture, and science. *In summa*: my solitude, which, as on very high mountains, often made it hard for me to breathe and made my blood rush out, is at least a dualitude (Letter to Franz Overbeck, 30 July 1881).

I. On Reading Spinoza

Spinoza's work comes largely as a response to Descartes's philosophy. One helpful way to look at Spinoza's project is to see it as attempting to find a middle path between Descartes's mind/body dualism and Hobbes's materialist monism. Spinoza believed that Descartes relied on a common, perhaps anthropomorphic, understanding of God. Spinoza pursues a purer concept, one which emphasizes the omnipresence of God over attributes, like perfect goodness or will, which seem to ascribe human characteristics to an infinite being.

Spinoza's work is difficult and obscure, and resists easy analysis. It is arranged in a synthetic, or geometric, mode of presentation, based on the structure of Euclid's *Elements*. Today, we would call the structure formal, or axiomatic. The most fundamental [mathematical and logical theories](#) are, or can be, presented axiomatically. Physical theories, too, may be presented axiomatically. Spinoza starts with a list of definitions and fundamental axioms, and proceeds to derive, in some sense, a series of propositions expounding his philosophy. The proofs are intended, presumably, to justify each proposition. As I mentioned in the Hobbes notes, they are often difficult to follow, and do not seem to work. In the scholia, comments located after the proofs of selected propositions, Spinoza relaxes from the formal structure and tries to explain what he means, and how propositions are related. The Appendix to Part One is similarly informal, and helpful. Even focusing on the propositions themselves, the scholia, and the Appendix, it is often difficult to see the central claims that Spinoza wants to make. Normally, in philosophy, we want not merely to understand a claim, but also to understand the argument for that claim, so that we may critically evaluate it. In the case of Spinoza, in this class, I am more concerned with understanding the picture of the world that he draws. Our critical analysis may apply more usefully to the big picture than to the detailed arguments.

Some secondary reading for Spinoza will be essential.

Melchert mainly avoids Spinoza, except for a helpful few paragraphs.

The Tlumak is useful.

I have found Bennett's collection, *Learning from Six Philosophers*, to be invaluable.

Both Tlumak and Bennett engage the secondary literature in a sophisticated way.

These notes, relying in large part on the expositions in Tlumak and Bennett, will be more basic.

You may notice that Spinoza's work is called *The Ethics* though the subjects of most of the work we shall read are mainly metaphysical.

The claim underlying Spinoza's title is that a proper understanding of metaphysics leads one to right behavior, a kind of eternity of the mind, and proper worship of God.

We will focus on three aspects of Spinoza's philosophy:

1. Monist metaphysics;
2. The relationship between mind and body; and
3. Freedom of the will and the problem of error.

While Spinoza holds views that often do violence to common sense, he is not a mystic.

His parallelism debars him from treating any aspect of the mental as 'occult' or 'queer'... and his naturalism debars him from treating anything as occult or inexplicable (Bennett 196).

When trying to figure out what his views are, one does well to try to interpret him charitably, as difficult as you may find the task.

One final suggestion: Isaac Bashevis Singer has a wonderful short story, "[The Spinoza of Market Street](#)."

## II. Monism - An Overview

Spinoza believes that there is just one thing: the most real being.

Mostly, he calls this thing God, though he also calls it Nature.

Spinoza often uses the phrase, 'Deus sive Natura': God, in other words Nature.

Individual bodies and minds are attributes of this single substance.

We, and all the things around us, are ways of God/Nature to be.

One way to understand Spinoza's monism is to consider the oddity of thinking about two things: God and a world.

If God were separate from the world, then God would not be omnipresent.

Consider Spinoza's argument, from his work on Descartes that we are not reading, that there can not be two Gods.

(This version of his argument comes from Bennett.)

If there are two Gods, then either God A knows about God B or he does not. If he does not, he is not omniscient and so is not a God (in the Christian sense). If he does, then he is partly passive - acted upon - because he is in a state of knowledge of God B which must be caused in him by God B - and so again he is not a Christian God (Bennett 119).

One can replace God B in this argument with anything, though.

As Bennett points out, the argument rules out not only another God, but also any other reality.

If we think of ourselves as individuals separate from God, we are limiting an infinite God.  
On the basis of just the infinitude of God, then, Spinoza derives his monism.  
God just is the world, and we are not individuals separate from God.  
We are part of God, modes or attributes of God, ways for God to be.

Spinoza's monism earned him excommunication from his Jewish community and derision alternately as an atheist and a pantheist.

It is clear that Spinoza rejected traditional religious views; it is not clear that he was an atheist.  
He lived a quiet and solitary life.

Despite corresponding with many of the scholars of his day, Spinoza preferred to avoid established universities, and worked as a lens grinder, living meanly and writing.

### III. Monism - The Dirty Work

Tlumak presents a helpful sketch of Spinoza's argument for monism in Part One of the *Ethics*, which I tweak in this section, taking it in steps.

First, I discuss the argument that substance exists (E); then that it is infinite (I); lastly that it is unique (U).  
Let's start with the claim that there is substance, or a substance.

- E
  - E1. Substance is independent.
  - E2. Whatever has an external cause can not be independent.
  - E3. So, substance has no external cause, and must be its own cause.
  - E4. Anything which is its own cause must exist.
  - EC. So substance exists.

E1 follows from Spinoza's definitions, most saliently:

By substance I mean that which is in itself and is conceived through itself; that is, that the conception of which does not require the conception of another thing from which it has to be formed (*Ethics* 1D3,1 AW 144).

This claim may be obscure to us, but there is a fairly easy way to understand his point.

Remember that Descartes distinguished, as we do in ordinary language, between objects and properties. Another term for 'object' is 'substance'; other terms for 'property' are 'mode', 'attribute', and 'affection'. It is also traditional, and not particularly contentious, to argue that properties depend on objects in a way that objects do not depend on properties.

That claim is just the general principle from which the particular claim that for redness to exist, there must exist red things follows.

Properties need to be properties of something.

Things need to have properties of course, but do not depend on particular properties for their existence.

The red car can be painted yellow without ceasing to be what it is.

Spinoza's claim that substance is independent is just that things are prior to their modes, with the caveat that there may not be more than one thing.

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<sup>1</sup> Note: references to *The Ethics* are written, for example, as 1D3 (Definition 3 in Part 1) or 2P7 (Proposition 7 of Part 2).

Spinoza takes E2 as a definition.

And E3 follows from E1 and E2 directly (by modus tollens, for you logicians).

E4 is more problematic.

Spinoza is relying on an interpretation of 'cause' that would have been easily understood by his scholastic contemporaries, but which has disappeared with the modern concept of causation.

Spinoza's understanding of cause is connected to questions about the existence of a first cause, and related arguments for the existence of God, the uncaused, or self-caused, cause.

Plato and Aristotle, and other ancients, discussed an uncaused cause.

Cosmological arguments for the existence of God, understood as the uncaused cause, trace to Aquinas.

Definition 1 of *The Ethics* indicates Spinoza's view and alludes to an ontological argument right away.

By that which is self-caused I mean that whose essence involves existence; or that whose nature can be conceived only as existing (*Ethics* 1D1, AW 144).

Spinoza's arguments for the existence, and necessary existence, of God, and his characterizations of God, proceed through Proposition 15 of Part 1, but I will not pursue them in detail, here.

The point we need to understand is how Spinoza understood 'cause' in such a way that anything which is its own cause must exist.

Notice that the very notion of an uncaused cause is pretty much completely unintelligible on a contemporary understanding of 'cause'.

Putting aside worries from quantum mechanics and relativity theory about backwards causation, for the contemporary reader, a cause must be temporally prior to its effect, by definition.

Spinoza is clearly using a different interpretation.

We can start to understand Spinoza's notion of 'cause' by thinking of it as related to explanation.

A cause of something may explain its existence.

Even on a contemporary understanding, the cause of an event might explain it.

If you ask why I am tired, I can explain that it is because I did not get much sleep last night.

Asserting the existence of an unexplained cause, or an unexplained explanation, or a phenomenon which explains itself, is not as repugnant as asserting the existence of an uncaused, or self-caused, cause.

And it is only a very short step from saying that God is an unexplained cause to saying that God's existence needs no explanation, or that something which is self-caused could not be conceived of as not existing.

That last claim is E4.

E4 and E3 entail the conclusion EC, that substance exists.

While EC seems to depend on a contentious premise, E4, the claim that substance exists is slight.

It is manifest that *something* exists.

We might, with some justification, then, conclude that Spinoza does a lot of work here for a little claim. I have spent time on it because of the characterizations of substance, cause, and independence we have examined along the way.

In particular, notice that the derivation of the existence of substance makes no reference to how many substances there are, or whether we can differentiate among them.

Let's proceed to the infinitude of substance.

- I
  - I1. Substance exists and is its own cause.
  - I2. No finite thing is its own cause.
  - I3. An infinite substance must have all attributes.
  - IC. So, substance must be infinite, and have all attributes

I1 comes directly from the prior argument, E.

For I2, consider Spinoza's definition of finite.

A thing is said to be finite in its own kind when it can be limited by another thing of the same nature. For example, a body is said to be finite because we can always conceive of another body greater than it (1D2, AW 144).

If a thing is finite, then there are other things that limit it.

Explanations about any individual, finite thing are going to appeal to its relations to other things.

Remember, Spinoza's notion of cause is tied to explanation.

If we want to explain why I am typing, we have to appeal to the keyboard, the computer, my students, parents, my family, and more.

Since explanations about any finite thing will depend on other things, finite things can not be their own causes.

As an aside, 1D2 leads us to wonder whether substance (or a substance) can be limited by another thing of the same nature.

Spinoza denies that this is possible.

In the universe there cannot be two or more substances of the same nature or attribute (*Ethics* 1P5, AW 145).

Attributes are how substances are individuated: different properties, different substance.

If there were two or more substances with the same attributes (or nature) those things would be indistinguishable.

Leibniz later invokes a principle of sufficient reason to block such a possibility: God would have no reason to create two substances with the same attributes.

Spinoza does not appeal to that claim, but, understood correctly, it is actually fairly uncontroversial.

Take any two things; there must be some difference between them.

Even if they were the same internally, they would have to differ in spatio-temporal location.

That's all that 1P5 says, properly speaking.

Its oddity is that Spinoza is taking it to show that there is only one thing.

Two bodies might limit each other, as he explains in 1D2, but that only shows that bodies are not substance (or substances).

I3 is implausible, on the surface.

Some infinite collections omit some things.

A line can travel in one direction without containing all points.

But, Spinoza's claim is clear once we take Spinoza not to distinguish between 'infinite' and 'complete'.

Spinoza thinks of God as not just infinite, but as encompassing everything.

This conception is part of his rejection of Descartes's common, anthropomorphic conception.

Lastly, let's derive Spinoza's monism, the uniqueness of substance.

- U U1. Substance is infinite, and has all attributes
- U2. There can not be two substances with the same attribute.
- U3. So, at most one substance exists.
- U4. Substance exists.
- UC. So, there is exactly one substance; we can call it God, or Nature.

We have seen both U1 and U2 in the argument I; U3 follows from them.

And U4 is the conclusion of the first argument E; UC follows from it.

The argument is complete.

Some interpreters of Spinoza's work argue that we limit ourselves by thinking of substance as an individual thing.

They suggest that we think of it as the order of things, or the realm of nature.

That approach might be useful, psychologically, but it does not do justice to Spinoza's actual words.

In the Appendix to Part One, Spinoza clarifies his reasons for thinking that everything is God.

Spinoza believes that everything is explicable.

God could not be separate and isolated from the world; that would limit God's power.

If God were separate from the world and interacting with it, then explanation would cease to be possible.

We would have to know God's mind, know God's reasons.

If God interacted with the world, we would have to impute to God will and desire, all properties of finite beings, but only anthropomorphically ascribed to God.

One should not think of God in the image of a human being.

He who loves God will not try to get God to love him back (*Ethics* 5P19, not in AW).

Explanations which appeal to God's will seem to Spinoza to be unsatisfactory.

If a stone falls from a roof on to some one's head and kills him, [those who make God separate from the world] will demonstrate...that the stone fell in order to kill the man; for, if it had not by God's will fallen with that purpose, how could so many circumstances (and there are often many concurrent circumstances) have all happened together by chance? Perhaps you will answer that the event is due to the facts that the wind was blowing, and the man was walking that way. "But why," they will insist, "was the wind blowing, and why was the man at that very time walking that way?" If you again answer, that the wind had then sprung up because the sea had begun to be agitated the day before, the weather being previously calm, and that the man had been invited by a friend, they will again insist: "But why was the sea agitated, and why was the man invited at that time?" So they will pursue their questions from cause to cause, till at last you take refuge in the will of God - in other words, the sanctuary of ignorance (*Ethics*, 1 Appendix; AW 162a-b, but in an alternate translation).

Compare this passage to the question of why the big bang occurred.

Scientific explanations that trace back to the big bang seem to leave open that question, and can never thus be fully satisfying.

But, we might find a more satisfying answer if we altered the way in which we thought about explanation.

I am not clear about how Spinoza's monism provides more satisfying explanations.

But, Spinoza thought that it did.

#### IV. Monism, Dualism, Property Dualism

Given Spinoza's claim that there is just one substance, we are naturally led to wonder if that substance is material or ideal, if it is body or mind.

Descartes posited both minds and bodies; that makes him a substance dualist.

Hobbes tried to explain everything with just bodies; he is a materialist monist.

Spinoza claims that the one substance is both mind and body.

That is why I called him a weirdo monist.

For Spinoza, there is only one substance, one object, properly speaking.

What we ordinarily think of as objects (e.g. trees, persons, Wankel rotary engines) for Spinoza are properties, or attributes, of God.

There are (lots of) mental properties and there are (lots of) physical properties.

Thus, Spinoza is a substance monist and a property dualist.

Property dualism, in Spinoza's sense, should be distinguished from a current use of that label, though it will be useful to compare them.

Let's take a moment to understand contemporary property dualism.

We can characterize the contemporary position in contrast to Descartes's substance dualism.

Recall Descartes's master argument for substance dualism.

- SD     SD1. I have a clear and distinct understanding of my mind, independent of my body.
- SD2. I have a clear and distinct understanding of my body, independent of my mind.
- SD3. Whatever I can clearly and distinctly conceive of as separate, can be separated by  
           God, and so are really distinct.
- SDC. So, my mind is distinct from my body.

Some folks, unconvinced by D3, weaken that premise (and the conclusion) to yield an argument for property dualism.

- PD     PD1. I have a clear and distinct understanding of my mind, independent of my body.
- PD2. I have a clear and distinct understanding of my body, independent of my mind.
- PD3. Whatever I can clearly and distinctly conceive of as separate, are really distinct  
           concepts.
- PDC. So, my mind is conceptually distinct from my body. I.e. mental properties are  
           distinct from physical properties.

Contemporary property dualists claim that while there is just one substance (which is material) it has some mental properties and some physical ones.

Mental properties, like those that compose our conscious states, are not completely explicable in terms of physical properties.

Contemporary property dualism is more properly seen as the result of recognizing, as we saw in our discussion of Hobbes, that some explanations of mental properties in terms of physical ones are implausible.

Hobbes says that pain, or sensation of red, or taste of a mango, is just the firing of neurons in my brain.

The claim that a conscious sensation just is, say, retinal stimulation of a certain type accompanied by the firing of certain neurons in the brain seems difficult to defend.

Still, even if we can not identify mental states with physical states, the contemporary materialist might argue that mental states supervene on physical states.

Here is a definition of supervenience from the [Stanford Encyclopedia of Philosophy](#).

A set of properties A supervenes upon another set B just in case no two things can differ with respect to A-properties without also differing with respect to their B-properties. In slogan form, “there cannot be an A-difference without a B-difference”.

The proponent of the supervenience thesis maintains the physicalist’s claim that for every mental state there is a corresponding physical state.

But instead of looking for the conscious experience in our brains, as we might think Hobbes recommends, we can look for what we call neural correlates of consciousness.

The property dualist claims that such identifications are category errors: they are different properties, and the one can not be reduced to, or explained in terms of, the other, even if there really are only bodies.

Thus substance monism (there are just physical bodies) is compatible with property dualism (mental properties are irreducible to physical properties).

The contemporary substance monist (i.e. materialist)/property dualist just claims that while everything is physical, there are mental properties (like having conscious experience) that aren’t explicable in physical terms even if they are utterly accountable, in some perhaps causal sense, by interactions in the material world.

Whatever mental properties are, for the contemporary materialist, they don’t force us to posit a separate mental substance.

Spinoza’s property dualism does not have a materialist base.

Moreover, the properties of which Spinoza claims there are two types (mind and body) are ordinarily taken to be substances.

So, Spinoza’s property dualism is a different kind than contemporary property dualism.

Still, it shares some of the characteristics of contemporary property dualism.

In particular, Spinoza agrees that there is a mental world and a physical world and neither one explains the other.

## V. Spinoza’s Monism and the Diversity of Attributes

One lesson that we should learn from studying Hobbes’s anemic account of consciousness is that a rejection of Descartes’s dualism is trickier than it looks.

It will not do simply to say mental states are physical states.

The deep question is how to take what look to be two things and make them one.

Spinoza’s monism is a subtler and more promising approach.

Spinoza’s one substance, which he calls God or Nature, is infinite.

By ‘infinite’, Spinoza means complete.

It has all possible attributes.

In particular, it has both mental attributes and physical attributes.

In other words, minds and bodies are both properties of God.

Notice that this means that God is, at least in one attribute, material.

Actually, Spinoza claims that there are more than merely two kinds of attributes.

Each entity must be conceived under some attribute, and the more reality or being it has, the more



are its attributes which express necessity, or eternity, and infinity. Consequently, nothing can be clearer than this, too, that an absolutely infinite entity must necessarily be defined (Def. 6) as an entity consisting of infinite attributes, each of which expresses a definite essence (*Ethics* 1P10, AW 147b).

To think about how there could be further attributes, let's consider a metaphor. Imagine that there were aliens with an extra capacity for sense perception. Suppose they had our five senses, but antennae with a sixth kind of receptor in addition. We perceive the world in only five modalities; the aliens perceive the world in six. We have absolutely no idea what it would be like to have a sixth sense, but there is no reason to think that there couldn't be such a thing. So it is with the attributes of God, for Spinoza. We only know the worlds of minds and bodies. But there could be other aspects of nature hidden from us. In fact, for Spinoza, the infinitude of God entails reason to believe that there are other such attributes. This multiplication of attributes is not a central claim, and affects little in the rest of Spinoza's work.

Despite their substance monism, both Spinoza and the contemporary property dualist seem to agree with Descartes about the separation of mind and body (and perhaps other attributes). Recall Descartes's argument that bodies or machines, like animals, can not think. He appeals to two characteristics of people: our language use and our behavioral plasticity. Our bodies are essentially similar to those of animals, perhaps a bit more complex in places. Yet we can think, and (other) animals can not. This alone shows Descartes that there must be minds independent of bodies.

For while reason is a universal instrument that can be of help in all sorts of circumstances, these organs require some particular disposition for each particular action; consequently, it is for all practical purposes impossible for there to be enough different organs in a machine to make it act in all the contingencies of life in the same ways as our reason makes us act (*Discourse* Part Five, AW 33a).

Descartes claims that the number of thoughts that we have could not be instantiated in a physical body. It would be like trying to run Windows 8 on a 1960s mainframe computer; it just doesn't fit. Descartes concludes dualism from the incompatibility of minds and bodies. Again, the dualist is saddled with a problem of interaction.

The substance monist/property dualist (whether Spinoza or the contemporary one), rejects Descartes's claim that there is an ultimate incompatibility between minds and bodies. Spinoza's monism is supposed to solve the problem of interaction. Hobbes's monism solved the problem by denying that there are mental substances. Spinoza can not invoke that solution since he believes that there are mental attributes of substance and there are physical attributes of substance. He agrees with Descartes (and against Hobbes) that there is a problem about reconciling the two. Spinoza is clear about the problem in Part Three, which is not in our reader:

The body cannot determine the mind to thinking, and the mind cannot determine the body to motion, to rest, or to anything else (if there is anything else). Proof: All modes of thinking have God for a cause, insofar as he is a thinking thing, and not insofar as he is explained by another attribute (by 2P6). So what determines the mind to thinking is a mode of thinking and not of

extension, that is (by 2D1), it is not the body. This was the first thing. Next, the motion and rest of a body must arise from another body... whatever arises in the body must have arisen from God insofar as he is considered to be affected by some mode of extension, and not insofar as he is considered to be affected by some mode of thinking (also 2P6), that is, it cannot arise from the mind, which (by 2P11) is a mode of thinking. This was the second point. Therefore, the body cannot determine the mind, and so on (*Ethics* 3P2).

Given that a monist metaphysics is largely motivated by the problem of interaction, it is disappointing that the problem reappears for Spinoza at the level of properties. Nevertheless, Spinoza has a unique and fascinating solution. He claims that though the mind and body do not interact, they move parallel to each other in such a way as to give the appearance of interaction.

The order and connection of ideas is the same as order and connection of things (*Ethics* 2P7, AW 166).

## VI. Parallelism

Here is how Spinoza's parallelism works.

Let's say your sweetheart gives you a kiss, which makes you feel happy, which in turn makes you hug your sweetie back.

It looks like a physical event causes a mental event which in turn causes another physical event.

Whether these events are made of interacting substances or properties makes no difference.

The point is that there seems to be causation moving from the material to the mental and back.

What is really happening, according to Spinoza's parallelism, is that there are two independent causal sequences.

In the physical chain, the kiss,  $p_1$ , causes a second physical event,  $p_2$ , which causes the hug,  $p_3$ .

In the mental chain, a mental event,  $m_1$  causes the happiness,  $m_2$ , which causes a third mental event,  $m_3$ .  $m_1$  is the mental correlate of the kiss, and  $m_3$  is the mental correlate of the hug; we are unaware of those ideas.

Similarly, there is a physical correlate,  $p_2$ , of the mental state of happiness.

There is no interaction between the  $p_i$ s and the  $m_i$ s.

It appears as if there is interaction because the two chains are aligned just right.

Spinoza's parallelism solves the problem of interaction by explaining how the appearance of interaction can arise from a system in which there is in fact no interaction.

That solution comes at a cost of positing extra mental and physical states.

There must be a mental state corresponding to every physical state, and a physical state corresponding to every mental state.

The contemporary defender of supervenience might subscribe to the latter claim.

The former claim is much more foreign, and difficult to understand.

There seem to be lots of physical states with no corresponding mental state.

What mental state is the correlate of, say, the tree falling in the forest with no one to hear it?

Still, the cost of his profligacy is small since Spinoza is already committed to the broadest possible infinity of states in God.

Moreover, in favor of Spinoza's account, we have to remember that the way we have been speaking, of

interaction, is really derived from a view of the world as containing independent substances.

Strictly speaking there is just the one substance.

Talk of interaction between the body and mind should, strictly speaking, be understood more like talk about different properties of the same substance.

Perhaps the difference between the mind and the body is more like the difference between perceiving an object with two different sense modalities: the taste and the look of the apple, say.

Just as we can perceive the wax with our different senses, so we have mental and physical aspects of ourselves.

This way of bringing together both the monist and parallelist doctrines of Spinoza can be edifying.

It helps explain Spinoza's claims that the mind is always thinking about the body.

That which constitutes the actual being of the human mind is basically nothing else but the idea of an individual actually existing thing (*Ethics* 2P11, AW 168b).

Whatever happens in the object of the idea constituting the human mind is bound to be perceived by the human mind; i.e., the idea of that thing will necessarily be in the human mind. That is to say, if the object of the idea constituting the human mind is a body, nothing can happen in that body without its being perceived by the mind (*Ethics* 2P12, AW 169a).

The object of the idea constituting the human mind is a body - i.e., a definite mode of extension actually existing, and nothing else (*Ethics* 2P13, AW 169b).

Recall Descartes's claims that knowledge of the wax brought him even more knowledge of himself.

Spinoza is claiming that the wax and one's body and mind are all part of the same whole.

The human mind is part of the infinite intellect of God; and therefore when we say that the human mind perceives this or that, we are saying nothing else but this: that God...has this or that idea (*Ethics* 2P11 corollary, AW 169a).

The union of the parallelist and monist aspects of Spinoza's work also allow us to see the relation between Spinoza's monism and Hobbes's monism.

Just as Hobbes's had only a material world with which to work, Spinoza has one, united world.

There are different aspects, or attributes, of this world.

But, they are not to be differentiated and separated; they hang together.

Spinoza's rationalism may obscure his other affinities to Hobbes.

While Spinoza's physics purports, like Descartes's, to be based in truths of reason, it adopts the new science's anti-Aristotelian view about inertia, and other anti-scholastic claims.

Spinoza, of course, adds a modal twist to the claim (i.e. that it is necessary)!

A body in motion or at rest must have been determined to motion or rest by another body which likewise has been determined to motion or rest by another body, and that body by another, and so *ad infinitum* (*Ethics* 2P13, AW 170b).

Despite his odd approach, and his weird metaphysics, Spinoza's physics is essentially Cartesian.

Bodies are not independent, and self-subsisting, of course.

We ordinarily think of motion in terms of objects changing their places.

It is hard to see how attributes could move.

The very notion of motion probably has to be altered.

Even if we came up with an account of the motion of attributes, since attributes depend on a substance, and all bodies are part of one substance, the relations among those attributes does not seem to follow directly from our ordinary conception of the relations among bodies.

That is, bodies can move relative to one another, but the relative motion of attributes is less clear.

Spinoza tackles the question in the physical interlude, the discussion following 2P13.

I reproduce here a long section which is useful to see how Spinoza turns from his account of motion to a further characterization of monism.

He uses 'individual thing' to refer to particular bodies and minds, recognizing that they are not really objects, but needing a term for them.

We have conceived an individual thing composed solely of bodies distinguished from one another only by motion-and-rest and speed of movement; that is, an individual thing composed of the simplest bodies. If we now conceive another individual thing composed of several individual things of different natures, we shall find that this can be affected in many other ways while still preserving its nature. For since each one of its parts is composed of several bodies, each single part can...without any change in its nature, move with varying degrees of speed and consequently communicate its own motion to other parts with varying degrees of speed. Now if we go on to conceive a third kind of individual thing composed of this second kind, we shall find that it can be affected in many other ways without any change in its form. If we thus continue to infinity, we shall readily conceive the whole of Nature as one individual whose parts - that is, all the constituent bodies - vary in infinite ways without any change in the individual whole (*Ethics* 2P13 Lemma 7 Scholium, AW 171-2).

Bennett suggests an analogy for understanding motion in the single substance: consider how a thaw might, in a sense, move across a region.

There's no real motion, just a change in the attributes of something stable.

If Spinoza is really committed to his monism, then what appears as motion is really just a change in the attributes of substance, a change in the way that substance is at a point in space-time.

Still, Spinoza believes that what appear as interactions of bodies, however they are most properly conceived, are governed by laws.

He banishes appeals to final causes and purposes.

The laws of nature govern the behavior of both bodies and mind, making all of our decisions determined.

Nothing in nature is contingent, but all things are from the necessity of the divine nature determined to exist and to act in a definite way (*Ethics* 1P29, AW 156).

This strict determinism, for both bodily and mental attributes, will cause difficulty in Spinoza's account of human error, as we will see.

We have looked at Spinoza's metaphysics and his philosophy of mind.

There is just one substance, call it God or Nature, and we are just aspects of that one thing.

Our minds and bodies work in parallel.

They may even be just two different ways of describing the same properties.

The last question we will ask, about Spinoza's work, is how his picture of the world can be compatible with our manifest ability to err.