

Class 7 - February 9

I. Zeno's Paradoxes: A Jigsaw

Last week, we wondered about the reality of the external world.

We discussed Berkeley's idealism, as well as the skeptical views that motivated both Moore and Wittgenstein.

We agreed, at the end of Friday's class, to put aside the skeptical question of the existence of the external world.

Maybe Moore is right that its existence is obvious and easily demonstrated.

Maybe Kant and Wittgenstein are correct that our very actions presume already the existence of the external world.

We can also put aside Berkeley's idealism, and assume that the world is a physical world.

Still, there is a question about what that world is like.

Descartes and Locke raised questions about the contrast between appearance and reality.

Even if we abandon the skeptical and idealist hypotheses, we have to figure out what the real properties of the external world are.

In particular, we are going to start asking questions about the nature of space and time.

These questions are related to each other, and to the concept of motion.

As the physicists tell us, motion is displacement over time.

Furthermore, according to contemporary physical theories, time is just a fourth dimension of the world, not essentially different from space.

Our best theories of the world posit three spatial dimensions and a fourth temporal one.

Actually, some physical theories posit many more dimensions than that.

But, they all posit at least those four.

Some of the earliest known concerns about the distinction between appearance and reality came from the pre-Socratic philosopher Parmenides.

He argued that all change, including motion, is an illusion.

Parmenides agreed with us that we need not be skeptical about the existence of an external world.

But, he denied that it had the properties which we ordinarily ascribe to it.

In defense of Parmenides, whose arguments are more obscure than I wish to engage, Zeno developed a series of paradoxes.

Each of these paradoxes was supposed to show something contradictory about the possibility of change.

We are going to look at four of those paradoxes, in groups.

Base groups of 4 (four paradoxes)

Work Groups each take one paradox.

Work groups questions:

1. What assumptions about space, motion, or time does Zeno make? Are these assumptions commonsensical? Are they defensible?
2. Can the paradox be solved by abandoning one or more assumptions?
3. Consider the standard solution. Are there alternatives?

Base group questions

1. How are the standard solutions similar?
2. Do Zeno's paradoxes point to a serious worry about space?
3. Can we solve the paradoxes without denying the existence of change?

II. Where and When

[Zoom video](#)

[See also: The Known Universe](#)

III. Space and its Relations

Gardiner's enantiomorphic polyhedrons

Kant's glove

For Friday:

Is space absolute or relative?

