

Viz. I have in my hand a stopwatch -- imaginary. And coming through the room is a railroad train -- *also imaginary*, heh heh. If it was a real railroad train it would kill us--and besides, it would be very expensive. Now -- I'm timing the train now. Is Time the measure of Motion -- “**click**”-- [makes train noise and runs across stage] --“**click**” -- or is, conversely, Motion -- now I'm going to be for you a grandfather's clock [swings arm] -- “**tick--tock--tick--tock**” -- the measure of Time?

Now, with the arrival in the 20th century of Planck's constant and the theory of quantum mechanics and with Heisenberg's uncertainty principle -- I think -- **we still don't know**.

However, we might very easily turn to the pre-Socratic philosophers (who were always good for a laugh) for assistance.

Now, take Heraclitus. Dr. Jose Benardete, by the way, has said in his book *Coming and Becoming*, he has quoted Heraclitus incorrectly as saying that "Time was a river which flowed endlessly through the universe." He didn't say this at all. He said, "Time was **LIKE** a river which flowed endlessly through the universe." Aha, there you are, Benardete!

Nonetheless, he discovered this one day, and he went home to his wife, Helen. That was her name, Helen Heraclitus. That's two H's, like Hugo Haas -- Herman Hesse -- Harry Halle[?] -- Herbert Hoover --

Heinrich Himmler --
oh, that whole crowd, ja.

Anyhow, he went home to his wife, Helen, and he said "Time is like a river which is flowing endlessly through the universe, and you couldn't step into the same river twice. Helen."

And she says, "What do you mean by that, Heraclitus? Explain yourself."

“That means you could go down to the Mississippi River, for example, and you could step in, and you could step out, and then you could step in again. But that river that you stepped in has moved downstream, you see, it's here. And you would only be stepping in the Mississippi River because that's what it's called, you see?

“Not only all that water, but if something were on top of the water--for example, a water bug--if it was there, it would be downstream. Unless, of course, it was swimming upstream, in which case it would be older and it would be a different bug.”

So, anyhow, Heraclitus went home to his wife with this news, and he said "Time is like a river which flows endlessly through the universe, and *you couldn't step into the same river twice.*"

She said, "**Don't be an ass, Heraclitus.** You could step into the same river twice -- if you walked *downstream* at the same rate as the river."

He was *amazed!*

So he went down to the agora, or marketplace, where there were a lot of unemployed philosophers (which means philosophers who weren't thinking at that time).

And they had a few drinks first and they went down to the river, and into the river they threw a piece of wood just to test how fast the river was going. And so Heraclitus saw how fast the wood was going. So he stepped into the river, and ran and stepped and ran and stepped and ran, and finally he ran out into the Aegean Sea and was drowned.

So much for Time.

Now we come to another pre-Socratic, Zeno, for Time and Motion, and Zeno's Paradox. Now, a paradox is something which when it is, it isn't, and when it isn't, it is -- paradoxically. And Zeno's Paradox is that if Achilles, the great Greek hero and athlete, were to get into a race with a tortoise, that he couldn't win. Silly, isn't it.

Well, if, for example, the tortoise was here and he would give the tortoise, say, a 10-foot headstart, just to be fair to the beast, and there would be--it would take, say, Achilles, 1 second to go 1 foot.

So at the end of 9 seconds, he would have one foot to go in one second, ja? And in a half of a second, he would still have a half of a foot to go, you see? And in a hundredth of a second he would have a hundredth of a foot to go. And in a *millionth* of a second, he would have a *millionth* of a foot to go. And since Time and Space are both **infinitely divisible**, he would *never pass the turtle!* Heh, heh.

But this is ridiculous! Anyone in this room could win a race with a turtle, you know, and we're not great heroes and athletes. Even for example, some old, very dignified person, like Bertrand Russell, HE could win a race with a tortoise. And if he couldn't win it, *he could outsmart it*, ja?

Nonetheless, I have discovered possibly the meaning for this paradox. I was reading recently a book called "Greek Pots In Polish Museums" by

John Davidson Beasley. 8vo, \$9.75 and worth every penny of it. Big wide margins--er, I'm getting off my point. Anyhow, in there is a picture of a pot that has on it a picture of a ripe [?] archaic tortoise of the kind that Zeno would have known about. Now, it isn't a little, flat American tortoise. **IT'S A LITTLE BULLET-SHAPED TORTOISE WITH LONG, SINEWY LEGS, ABOUT 4 FEET LONG, AND IT COULD RUN LIKE CRAZY!**

Now this would seem to explain it, ja? *But it doesn't!* Because Homer, who *never lied about anything*, said that Achilles could, if he wanted to, beat any man or beast in a foot race.

Now what does this mean, "if he wanted to"? You know how some people *can't step on the line in the sidewalk?* Achilles *couldn't pass a tortoise!*

He was a very **sick hero!**

Now, Thought.

For centuries philosophers have told us that Thought cannot be seen, it cannot be heard, cannot be felt, smelled, cannot be tasted. It is not in the key of G -- or F. And it is not blue -- nor is it mauve. It is not a pot of geraniums. It is not a white donkey, against a blue sky. Or a blue donkey, against a white sky. Nor does it have aspirations to become archbishop. It is not a little girl, singing an old song. Thought is not a saffron-robed monk, pissing in the snow.

In other words, philosophers can tell you millions of things that Thought *isn't*, and they **can't tell you what it is!** And this **bugs them!**

But you are out there and you're thinking and I'm up here and I think that you're thinking, and we think, and we think that the sun comes up in the morning, pouring forth its beautiful bounty of light, and as Shakespeare said, *What a piece of work is man!*

Are there any questions? Thank you.

I would really like to answer any questions that you might have. Now, I don't have anyone planted in the audience. Occasionally friends of mine who are in the audience throw up some hideous thing. They know the areas in which I am weak! Only in this sense do I have someone planted. So if you could ask me anything that you might not know about the universe.

Q: What is the relation between Space and Time?

What is the relation between Space and Time? Well, let's see, I thought I had covered that. Now the relation--well, Space, for example, it is a thing which is occupied by matter. Ja? Whereas Time occupies Space, as we all know. Have you ever, for example, had any Time pass when there was no Space? I mean, have you ever been no place for a long time? It couldn't happen! It could, theoretically, of course. But I mean, even with a lot of equipment it would be difficult.

Could I have another question?

Q: Do fish think?

Well, that's a very good question, but it's not in the realm of metaphysics. Now I had a fish once--name was Louise, as a matter of fact. Small, fat fish. And every day at the same time I would go to the edge of the pond--a little iron tank in my house--and throw it a bunch of grapes. You know? Every day at the same time the fish would be there.

After a few days she knew at 1:45, grapes, bam! Fish!
However, I began making it 15 minutes later every day, you see. And then when I was there at 2 o'clock, she'd be there at 1:45. She was 15 minutes behind. After a while she was **hours** and **days** behind! And she starved to death. *Yes, fish think--but not fast enough!*

Could I have another question, please?

Q: [German accent, much thicker than Darden's] Professor, what is Truth?

What is...?

Q: Truth.

Truth?

Q: Truth.

Oh, ja. Mm-hm. An accent.

Well, Truth is very difficult to explain. It is not merely the opposite of falsehood. When I say I am here, that is True temporarily, but it is not always True. And certain truths are immutable. Like for example, I am not elsewhere, which is just as true here [walks across stage] as it is over here. You see? I am still not elsewhere. No

matter where I go I can't get away from me! It's sort of frightening -- that's what we call Truth!

Could I have another question?

Q: Will the sun rise tomorrow?

Yes. Next question?

Thank you.