

PHILOSOPHY 350

Pelletier

A slightly different translation of Zeno's various arguments than the ones given in our textbook.

First Argument Against Plurality:

(A) If anything is one and self-identical, it would not have parts, and then it would not have size. But if anything exists, it must be one and self-identical. Hence, if the Many exist [or: if there are many things], then each of the Many would have to be one and self-identical, and hence none of them would have size.

(B) For (a) if something having no size were added to another, it would make it <the latter> no larger. For (b) having no size, it could not contribute anything by way of size when added. And thus (c) the thing added would be nothing. (d) If indeed when something is subtracted from another, the latter is not reduced, nor again increased when something is added to it, it is clear that what is added or subtracted is nothing and thus does not exist.

(C) But, if the Many exist, then one of them must have some size and thickness and one part of each must extend beyond the other part of the same existent. And the same reasoning holds of the projecting part. For this too will have size and some part of it will project. Now to say this once is as good as saying it forever. For no such part <i.e., no part resulting by subdivision, no matter how far this process is carried out> will be the last or without one part as similarly related to another part. Thus, if there are many, they must be both small and great: on the one hand, so small as to have no size, on the other hand so large as to be infinite.

Second Argument against Plurality:

If there are many, they must be just so many as they are, neither more nor fewer. But if they are just so many as they are, they must be finite in number. If there are many, the existents are infinite in number: for there are always other existents between existents, and again others between these. And thus the existents are infinite in number.

The Stadium [Against Motion]

...suppose a number of objects all equal with each other in dimensions, forming two equal trains and arranged so that one train stretches from one end of a race-course to the middle of it, and the other from the middle to the other end. Then if you let the two trains, moving in opposite directions but at the same rate, pass each other, then half of the time they occupy in passing each other is equal to the whole of it...

The Race Course [Against Motion]

If there is motion, the moving object must traverse an infinity in a finite time, and this is impossible. Hence motion does not exist. For the moving object must have a certain stretch. And since every stretch is infinitely divisible, the moving object must first traverse half the stretch it is moving, and then the whole; but before the whole of the half, half of that and, again, the half of that. If then these halves are infinite, since, whatever may be the given stretch it is possible to halve it, and it is impossible to traverse the infinity of these stretches in a finite time...it follows that it is impossible to traverse any given length in a finite time.

The Achilles [Against Motion]

...the slowest will never be overtaken by the swiftest; for the pursuer must first reach the point whence the pursued started, so that the slower must always be some distance ahead.

The Arrow [Against Motion]

...since a thing is at rest when it has not shifted in any degree out of a place equal to its own dimensions, and since at any given instant during the whole of its supposed motion the supposed moving thing is in the place it occupies at that instant, the arrow is not moving at any time during its flight.

Against Space

...If place is itself an existent, where will it exist? For if every existent is in a place, clearly there will have to be a place of a place, and so on *ad infinitum*.

The Millet Seed (about the delusiveness of perception)

Protagoras admits that the ten-thousandth part of a seed will not make a noise when it falls. But a bushel does make a noise, so there must be some ratio of a bushel to a ten-thousandth part of a seed that the noises stand in.