

WHAT IS CAN'T COME TO BE

8.1 **Just one story is still left**

8.2 **of a route: that it is.** On this [route] there are signs

8.3 very many, that **what-is is ungenerated and imperishable,**

8.4 a whole of a single kind, unshaken, and complete.

8.5 Nor was it ever nor will it be, since it is now, all together,

PRINCIPLE OF SUFFICIENT REASON

8.6 one, holding together: For **what birth will you seek out for it?**

8.7 **How and from what did it grow? From what-is-not I will allow you neither to say**

8.8 **nor to think:** For it is not to be said or thought

8.9 **that it is not. What need would have roused it,**

8.10 **later or earlier, having begun from nothing, to grow?**

8.11 **In this way it is right either fully to be or not.**

NO GENERATION EX NIHILO

8.12 Nor will the force of true conviction ever permit anything to come to be from what-is-not,

6.522 There are, indeed, things that cannot be put into words. They make themselves manifest. They are what is mystical.

6.53 The correct method in philosophy would really be the following: to say nothing except what can be said, i.e. propositions of natural science—i.e. something that has nothing to do with philosophy—and then, whenever someone else wanted to say something metaphysical, to demonstrate to him that he had failed to give a meaning to certain signs in his propositions. Although it would not be satisfying to the other person—he would not have the feeling that we were teaching him philosophy—this method would be the only strictly correct one.

6.54 My propositions are elucidatory in this way: he who understands me finally recognizes them as senseless, when he has climbed out through them, on them, over them. (He must so to speak throw away the ladder, after he has climbed up on it.) He must transcend these propositions, and then he will see the world aright.

-Ludwig Wittgenstein, *Tractatus Logico-philosophicus*

Zeno of Elea

- Biographical Info:
 - b. ~490 BCE, d. ~430 BCE
 - Lived in Elea

Zeno of Elea

- Zeno's Paradoxes:
 - Infinite Division (Simplicius fragment, Reader p. 6)
 - The Dichotomy Paradox (fragments 6, 8)
 - The Achilles, or "Achilles and the Tortoise" (fragment 7)
 - The Arrow (fragment 9)
 - The Stadium (fragment 10)

Sidebar: A continuum as an ordered set of unextended points

	1	2	3	4...
1	1/1	2/1	3/1	4/1...
2	1/2	2/2	3/2	4/2...
3	1/3	2/3	3/3	4/3...
4...	1/4	2/4	3/4	4/4...

Rationals	1/1	2/1	1/2	1/3	2/2	3/1	4/1	3/2	2/3	1/4..
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Naturals	0	1	2	3	4	5	6	7	8	9...

Sidebar: A continuum as an ordered set of unextended points

0	↔	0.dddd...
1	↔	0.dddd...
2	↔	0.dddd...
...	↔	...

Zeno of Elea

The Dichotomy Paradox (fragments 6, 8)

Journeys: $1/2, 1/4, 1/8, \dots, 1/2^n, \dots$ ($n = 1, 2, 3, \dots$)

Total Distance Traveled: $1/2 + 1/4 + 1/8 + \dots + 1/2^n + \dots$ ($n = 1, 2, 3, \dots$)

= The limit of the following sequence of partial sums: $1/2, (1/2 + 1/4), (1/2 + 1/4 + 1/8), \dots, (1/2 + 1/4 + 1/8 + \dots + 1/2^n), \dots$ ($n = 1, 2, 3, \dots$)