

Chapter 6

Two-Part Invention

I am the Walrus – The Beatles

6.1 Abstract

Bach also wrote fifteen two part inventions. This two-part Dialogue was written not by me, but by Lewis Carroll in 1895. Carroll borrowed Achilles and the Tortoise from Zeno, and I in turn borrowed them from Carroll. The topic is the relation between reasoning, reasoning about reasoning, reasoning about reasoning about reasoning, and so on. It parallels, in a way, Zeno's paradoxes about the impossibility of motion, seeming to show, by using infinite regress, that reasoning is impossible. It is a beautiful paradox, and is referred to several times later in the book. *GEB pp. viii*

6.2 Lewis Carroll's Paradox

- The basic axiom of reasoning is call “Modus Ponens”.
- Failing to agree to this axiom leads to “infinite regress.”
- What distinguishes these paradoxes?
- How do we resolve these paradoxes? Zeno should that Motion Is Inherently Impossible and thus Motion Unexists ($MIII \Rightarrow MU$), but now Carroll seems to show that reasoning is impossible too!