

*Repeat the original experiment (no detectors) but emit electrons—still one at a time—instead of light.*

Score full points for yourself if you said that electrons are particles so you won't see an interference pattern. You're understanding, and you're thinking—but you're also wrong. This experiment shows the same interference pattern that you see with light.

The orthodox interpretation says that all particles, not just photons, exist as waves. When you measure their locations they collapse into specific positions. Not only has this experiment been done with electrons, but also with entire atoms. Each atom you send through passes through the slits as a wave and experiences interference, but then shows up at a single spot on Wall B. We will discuss some implications of this result later in this chapter.