Abstract Submitted for the NEF11 Meeting of The American Physical Society

A non-QM explanation of Jacques' (2007) "Wheeler gedanken experiment with delayed choice," without delayed choice JEFFREY BOYD, retired — The publication in Science in 2007 of Jacques et al "Experimental realization of Wheeler's delayed-choice gedanken experiment," appears to demonstrate many counter-intuitive ideas. The solidity of those conclusions depends on whether quantum mechanics (QM) provides the ONLY available explanation of the experiment. By thinking outside the box we have arrived at a different explanation of that experiment. QM is the box outside of which we think, not because of criticism of QM, but in order to explore an unconventional viewpoint. Our explanation is based on elementary waves. We find no delayed choice. What appears to be delayed choice is an illusion. We also find local cause and effect. This does not prove that our way of thinking is correct. It simply means that we propose an alternative explanation of the experiment that does not lead to all those counter-intuitive ideas.

Jeffrey Boyd retired

Date submitted: 07 Oct 2011 Electronic form version 1.4