

Abstract Submitted
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A delayed choice quantum eraser experiment that involves no delayed choice, no quantum eraser, and no complementarity JEFFREY BOYD, retired — Kim et al published an article, “A delayed choice quantum eraser,” in 1999 that appeared to show many remarkable things, including that the choice of observable erases the interference fringes that were previously recorded in a double slit experiment. However, the solidity of those conclusions hinges on whether or not quantum mechanics provides the only available explanation of that experiment. By thinking outside the box we have a different way of viewing that experiment. We find there is no delayed choice in the Kim experiment of 1999. There is no quantum eraser. What appears to be a delayed choice and a quantum eraser involve a different understanding of Kim’s experiment than the one we favor. We also show how the double slit experiment can be understood with local cause and effect, and without complementarity.

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