

In Dennis Overbye's New York Times article, *Third Gravitational Wave Detection, From Black-Hole Merger 3 Billion Light Years Away*, he explains not only that gravitational waves were detected but he also gives a layman's description on how the scientists detected these vibrations. If you look at this article through a Nature of Science lens, you can identify a few of the tenets throughout the article. Mr. Overbye explains that scientists were using LIGO, the Laser Interferometer Gravitational-Wave Observatory, to study black holes. These scientists were able to substantiate Einstein's idea that "space-time can shake like a bowlful of jelly when massive objects swing their weight around" (Overbye, 2017, p. 1). This follows the practice that scientific models, laws, mechanisms, and theories explain natural phenomena. He describes "waves started jiggling LIGO's mirrors back and forth by a fraction of an atomic diameter 20 times a second. The pitch rose to 180 cycles per second in about a tenth of a second before cutting off" (Overbye, 2017, p.3). The scientists were then able to gather scientific knowledge based on empirical evidence. Mr. Overbye also points out the additional questions created by their finding, "Where did such massive holes come from? How were such large black-hole binaries created? How did they form?" (Overbye, 2017, p.5). These questions help scientists further their discoveries of the natural world. Renee Schwartz reminds us in her article, *What's In A Word? How Word Choice Can Develop (Mis)conceptions About The Nature of Science*, that there are many misconceptions surrounding scientific research. She notes that the idea that "science finds absolute answers" is an unfounded misconception that many people believe (Schwartz, 2007, p. 47). By reading Overbye's article, you can clearly see that the scientists didn't stop at substantiating Einstein's theory but are constantly looking for more information.

References

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