

Review of: "Objectivity and Honesty in Science: The case of Light Interference Phenomena"

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Potential competing interests: No potential competing interests to declare.

Carole Nahum has done impressive research on the history of one of the fascinating discoveries in physics. My enthusiasm for her work is somewhat tempered by a few shortcomings (or what I see as shortcomings).

First, her paper bears traces of haste, especially toward the end, including typos, unclear sentences, repetitions, or references to events not mentioned before (such as *And Fresnel was the winner of the Competition proposed by the French Royal Academy of Science in 1819...* (Later, the date of that competition is incorrectly given as 1821). As for that famous competition, it is usually described as a seminal event in the optical science, but is only given a cursory mention in Nahum's paper.

Second, I suspect there is an error in the description of the particle theory. The author writes: *These particles can travel because of attractive and repulsive forces one exerts on to the others.* And later: *Those particles follow Newton's laws of mechanics, which means that attractive or repulsive forces, expressed in terms of the square of their distances, cause their movement.* I wonder if interaction *between* light particles is really assumed in Newton's theory of light (but I may be wrong here)

I also find the paper itself much more interesting than the stated goal: to demonstrate that scientists can be driven by pride, jealousy, etc. To prove that, one does not need to go two hundred years back: just look around!

The author quotes Fresnel saying: *Nature does not care about mathematics!* Here the author leaves off without a comment, but the quotation is controversial and interesting, and I wish Ms. Nahum explores this in her future work!