

Boscovich's theory and the Philosophic tolerance of entertaining a thought

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From Nature 40, 545-547 (03 October 1889) | doi:10.1038/040545a0 "On Boscovich's Theory"

Says: "WITHOUT accepting Boscovich's fundamental doctrine that the ultimate atoms of matter are points endowed each with inertia and with mutual attractions or repulsions dependent on mutual distances, and that all the properties of matter are due to equilibrium of these forces, and to motions, or changes of motion produced by them when they are not balanced; we can learn something towards an understanding of the real molecular structure of matter, and of some of its thermodynamic properties, by consideration of the statical and kinetic problems which it suggests. Hooke's exhibition of the forms of crystals by piles of globes, Naviers's and Poisson's theory of the elasticity of solids, Maxwell's and Clausius's work in the kinetic theory of gases, and Tait's more recent work on the same subject-all developments of Boscovich's theory pure and simple-amply justify this statement. Boscovich made it an essential in his theory that at the smallest distances there is repulsion, and at greater distances attraction; ending with infinite repulsion at infinitely small distance, and with attraction according to Newtonian law for all distances for which this law has been proved." [1]

Just want to now check that we all understand the relevant passage correctly-

Quote --- "WITHOUT accepting Boscovich's fundamental doctrine that the ultimate atoms of matter are points endowed each with inertia and with mutual attractions or repulsions dependent on mutual distances, and that all the properties of matter are due to equilibrium of these forces,....."

"Without accepting" -- is shorten version of -- "to entertain a thought without accepting it"

This comes from- "It is a mark of an educated mind to be able to entertain a thought without accepting it" – Aristotle and also credited to Vittorio Alfieri (1749-1803). [2]

It is very relevant to be able to think things through from different perspectives – in other words to entertain a thought that one might not agree with and work out its consequences.

So in case of Boscovich's theory we entertain the thought (idea of it) and see its consequences.

It is not to everyone's liking the idea of Boscovichian atoms, but one must be tolerant of such a viewpoint and think through its consequences to see that it actually fits the facts of physical reality.

And as the rest of the short article points out –Naviers, Poisson, Maxwell, Clausius and Tait's works are all developments of Boscovich's theory

However the words "Without accepting..." at the start of the Nature article can give wrong impression if one is unable to realise - it is asking the reader against their prejudices to entertain the idea. Thus Boscovich's theory although the basis of modern physics as pointed out in my other articles seems counter-intuitive to most people's senses (as pointed out by Nietzsche); so people might just be prejudiced against the idea without wanting to give it fair consideration. .i.e. certain people just may not want to consider a unified theory of physics.

References

[1] Nature **40**, 545-547 (03 October 1889) | doi:10.1038/040545a0
<http://www.nature.com/nature/journal/v40/n1040/abs/040545a0.html>

[2] credited to Aristotle at: <http://www.afrc.uamont.edu/ficklinr/quotes.pdf> and
<http://www.brainyquote.com/quotes/quotes/a/aristotle100584.html> and to
Vittorio Alfieri at <http://www.worldofquotes.com/topic/Thought/index.html>

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