WHAT DOES EINSTEIN MEAN?\(^1\)

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I am not sure that I shall fully succeed in explaining during this hour what relativity is, but I shall be satisfied if I succeed in at least removing some of the prejudices which have arisen in connection with this question. Relativity is so simple that the greatest difficulty in understanding it lies in getting rid of one's prejudices. It is really remarkable that Einstein, who is certainly the most popular scientist in the world, is the author of the most unpopular theory in the world. I think a greater harmony should prevail in the popular mind between the man and his work.

One of the common prejudices concerning the theory of relativity is the idea that according to it everything is relative. Nothing could be more incorrect than this assumption. The theory of Einstein states that many things, many notions, many qualities which we thought absolute are actually relative, but on the other hand it destroys the old absolutes only to build up new ones. It could be called, with better right perhaps, the theory of the absolute and not the theory of relativity. It introduces relative quantities only in order to build up absolute quantities out of them and to build up rules for connecting them which will be absolute and which will express physical laws. Maybe if the theory of relativity were called the theory of the absolute it would not appeal so much to the present sophisticated generation, and there would be less talk about it.

Another prejudice is the idea that the theory of relativity was entirely created by Einstein. It was prepared for by the work of Newton. The relativity of space was incorporated in Newton's work; Einstein extended this so as to include the relativity of time.

In his celebrated "Principia" Newton started by saying that space is absolute and that space is at rest; also, he added that time is absolute and flowing uniformly without any connection with other events. Let us leave time alone for a while, and consider what...