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CONTENTS

<i>Experimental Science and World Geometry: PROFESSOR A. C. LUNN.....</i>	579
<i>Mysterious Acoustic Phenomena in Yellowstone Park: DR. HUGH M. SMITH.....</i>	586
<i>Sir John Burchmore Harrison: DR. C. A. BROWNE.....</i>	587
<i>Scientific Events:</i>	
<i>Cooperation between the United States and Great Britain in Mine Safety Research; The Endowment Committee of the Engineering Foundation and Engineering Societies Library; National Research Fellowships in the Biological Sciences; The Golden Jubilee of the American Chemical Society.....</i>	589
<i>Scientific Notes and News.....</i>	591
<i>University and Educational Notes.....</i>	594
<i>Discussion:</i>	
<i>Human Tails: DR. W. W. KEEN. Citations of Scientific Literature: DR. F. A. McDERMOTT, DR. ALFRED REHDER. Introduction of Lemmings on St. Paul Island, Alaska: HENRY O'MALLEY. The "White Indians" of Darien: DR. MAYNARD M. METCALF</i>	595
<i>Scientific Books:</i>	
<i>Helmholtz's Treatise on Physiological Optics: PROFESSOR LEONARD T. TROLAND.....</i>	597
<i>Scientific Apparatus and Laboratory Methods:</i>	
<i>Surface Tension Measurement by the Ring Method: DR. PAUL E. KLOPSTEG.....</i>	599
<i>Special Articles:</i>	
<i>The Effect of Adrenalin on the Luminescence of Fireflies: DR. WM. S. CREIGHTON.....</i>	600
<i>The Ohio Academy of Science: WILLIAM H. ALEXANDER</i>	601
<i>The Utah Academy of Sciences: C. ARTHUR SMITH.....</i>	602
<i>The North Carolina Academy of Science: BERT CUNNINGHAM</i>	602
<i>Science News</i>	x

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EXPERIMENTAL SCIENCE AND WORLD GEOMETRY¹

THE major advances in science are many-sided. Though led by men of exceptional genius they have always been natural outgrowths of the concepts and problems met with in preceding systems of ideas. They have had natural setting not only in the main current of science in the narrower sense but even in the general thought of mankind. They need to be viewed in varied ways, interpreted by persons of varied outlook and equipment, in order that both their powers and their limitations may be understood.

For my part in the present group of papers I have chosen a point of view indicated by the title and best described in the body of the paper. Some reasons for this choice are found in the flavor of recent discussions concerning the bearing of particular experiments on the future of the relativity theory, in particular on the oft-heard question whether it is true or false. Now it is apparent that some of the diversities of judgment and expectation on these matters are to be ascribed to differences of opinion as to the nature and possibilities of scientific theories altogether. We may never reach unanimity on this point. It is perhaps even probable that there will always remain ways of thinking so contrasted that according to one's philosophy any particular theory can be justly called either true or false. Since one main motive of a genuine relativity scheme of thought is the explicit recognition of a variety of points of view or "frames of reference," it would be consonant with the spirit of such a theory to welcome a variety of modes of judgment even as to its own truth and virtue. But it is important to remember that part of the discrepancies of judgment are due to double meanings in the language used, not easy to avoid and therefore needful to be noticed.

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¹ Third paper of symposium on relativity, joint meeting of American Physical Society and Section B, American Association for the Advancement of Science, Kansas City, Mo., December 30, 1925.

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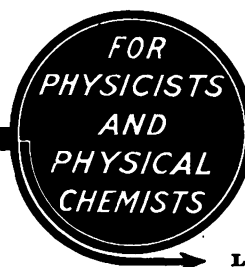


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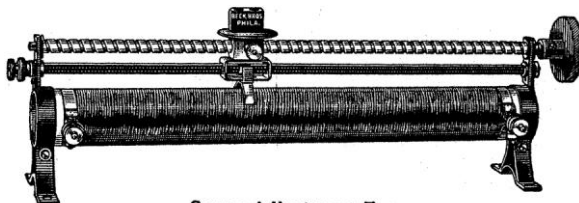
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