THE BRITISH SOCIETY FOR THE PHILOSOPHY OF SCIENCE

THE seventh annual conference of the British Society for the Philosophy of Science was held during September 21–23, in Tetley Hall, University of Leeds. It comprised a colloquium of four symposia and was attended by some sixty members and guests. Mr. F. T. C. Harris of Middlesex Hospital Medical School was conference secretary.

The four symposia were entitled: "The Idea of a Physical Quantity", "Fundamental Particles and Identity", "Kant's Regulative Principles and their application to Science", and finally, "The Nature of Law in Social Science". In conformity with the Society's usual practice each symposium heard two papers and then entered into a discussion of them.

With the Society's president, Prof. R. B. Braithwaite, in the chair, Dr. J. R. Ravetz (University of Leeds) introduced the first symposium with a historical paper "Galileo and Physical Quantities", which discussed the belief in the existence of physical quantities and the problem of assigning measures to these quantities. Dr. Ravetz claimed that the first of these was an essential assumption in Galileo's investigations, while the second is necessary for the construction of a fruitful natural philosophy. There followed an inquiry into the relationship between the concepts of 'quality' and 'quantity' in which the speaker, Dr. H. V. Stopes-Roe (University of Birmingham), argued that the former concept included the latter. For example, the quality brightness can be given a measure and so construed as a quantity. Galileo's idea of fundamental individual quantities was claimed by Dr. Ravetz to be inadequate, leading Galileo away from the formulation of a coherent approach to units and thus away from numerical results. On the other hand, Dr. Stopes-Roe suggested that Fourier's approach to this problem similarly failed to treat the unit satisfactorily. He went on to suggest that the concept of quantity should be taken as basic and combined with a liberal approach to the analysis of the concept 'quantity'.

Dr. C. W. Kilmister (King's College, London) took the chair at the second symposium, the first paper of which was a very thorough survey by Dr. H. R. Post, of the Chelsea College of Advanced Technology. Dr. Post explained that elementary particles of one type had no individuality. It was a fallacy to derive this non-individuality from Heisenberg's Principle. In fact it derived from the nature of the theoretical structure of quantum mechanics. Fundamental particles are without 'secondary qualities', he insisted, and their lack of individuality derives less from their ontological status than from their high level of abstraction.

In the second paper Dr. E. W. Bastin (King's College, Cambridge) took the point of view of ontological realism. He argued that in electron spin one had a property which was uniquely identifiable, but must, of course, be attributed to individual events, particles, which existed as such. In discussion Prof. Braithwaite and Dr. Kilmister took the side of Nature, the latter with currently new empirical data.

Prof. S. Korner was chairman at the third symposium, which was opened by Mr. Jonathan Bennett with an argument directed to disproving Kant's view that a science in which some generalizations have exceptions is intellectually disreputable. Contrary to this, Mr. Bennett held that the scientist must qualify his generalizations if he is to avoid confusion. Mr. Bennett explained a 'regulative principle' as one that had no other justification than its utility. Thus, standing unanalysed, it bears comparison to a logical axiom. The Kantian view that every-

thing has a cause is just such a principle. Mr. Bennett went on to show that Kant's claim that the principle of causation had such a status is in fact at variance with that writer's attempted proof elsewhere, of that very same principle: but under the name 'the second analogy from experience'. Entirely to the contrary, Dr. G. Buchdahl (The Whipple Museum, Cambridge) accepted Kant's distinction between a general principle of causation and a 'regulative' principle of determinism. He held that, of the two versions of the deterministic principle discussed by Mr. Bennett, only the first is truly regulative and it is this version that permits the law-like nature of empirical generalization. The chairman introduced the discussion and directed attention to the philosopher's distinction between logical implication and nomical implication, or implication reflecting things as they are. He pointed out that Kant did not regard Newtonian physics as a regularity which happened to be observed, but did in fact believe it to be true. As Prof. Korner remarked, "The opus of great philosophers is a kind of philosophical Rorschach test".

The discussion of the final symposium was carried out under the guidance of Mr. J. W. N. Watkins (London School of Economics). The symposium opened with a paper by Mr. J. G. H. Newfield (London School of Economics), which criticized the views expressed in Mr. P. G. Winch's *The Idea of a Social Science and its Relation to Philosophy* (London, Routledge and Kegan Paul, 1958). Mr. Newfield argued that to criticize sociology by means of *a priori* philosophical criteria was to make a category mistake. For example, it was not a prerequisite for sociology that sociologists study the language of their science, a test procedure for laws was simply to distinguish between their valid and invalid applications and this did not necessarily involve formulating the law. Mr. P. G. Winch (University of Wales) argued that the Humeian position taken by the previous speaker was fully answered by Kant, and it was this philosopher that Mr. Winch followed. It was not the case that regularities were first observed and then logic entered the field. It was more cogent to argue that the observation of empirical regularities was only possible within a preconceived frame-work of order, which was an argument in accord with the hypothetic-deductive point of view of Prof. K. R. Popper. Mr. Watkins agreed with the second speaker that phenomena arise from language. He also argued that Mr. Winch's approach did not admit of social criticism in that it had not been equipped with a metalanguage. Prof. W. C. Kneale, the president-elect, took up a point concerning the reducibility of sociological concepts to dispositional statements about individuals. He pointed out a fundamental difference between the reduction of a behavioural science, sociology, to psychology, and of a physical science, chemistry, to physics, in that the former reduction would have to embrace two different conceptual schemes. For example, it was not possible to describe the spread of economic consumption in psychological terms.

In his closing address the president of the Society, Prof. R. B. Braithwaite, thanked the conference secretary and Mr. B. C. Brookes, University College, London, for their efforts on behalf of the conference, the warden of Tetley Hall, Miss E. M. McAlpine, for the care taken by her staff and herself for the comfort of the participants and the Department of Biology as Applied to Medicine, Middlesex Hospital Medical School, for secretarial assistance.

D. G. HARRIS
F. T. C. HARRIS