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THE RELATION OF STATISTICS TO MODERN MATHEMATICAL RESEARCH¹

THE annual meeting of Section A, in conjunction with the other mathematical organizations, and in affiliation with the bodies devoted to progress in all departments of science, gives us occasion as mathematicians to pause and look about us, to be stirred by the proximity of the major activities of the rest of the scientific world, and to form a renewed estimate of our place in the general scheme of things. During most of the year we are occupied with our own problems, or in consultation with a colleague in a neighboring field about a particular aspect of some special investigation, the further implications of which he has time to explain only incompletely, and we imperfectly to understand. Occasionally it is well to reassemble the detached items which have engaged our attention from time to time, and to judge the broad tendencies of which they are significant.

We are constantly reminded that our affiliations are no longer so exclusively with physics and astronomy as was formerly the case. Not only chemistry, but also the biological and social sciences are taking us into their confidence, and welcoming us to the discussion of their projects and their difficulties. A former pupil of mine appears on the records of the graduate school as a candidate for the degree of Ph.D. with psychology as major subject, and a minor divided between mathematics and botany. One can imagine the derision with which such a combination would have been greeted a few years ago. His thesis is a statistical investigation of a psychological problem, in support of which he has taken courses in the mathematical theory of statistics and in biometry. The fact that derision among workers in different fields has been so largely replaced by respectful attention is one of the most wholesome features of the situation.

The diversion of a part of our energies into new channels does not mean that the problems of mathematical physics are any less challenging than before. Within our own recent memory the doctrine of relativity has constituted a major upheaval in the realm of pure mathematics as well as in physics. There has

¹ Address of the vice-president and chairman of Section A—Mathematics, American Association for the Advancement of Science, December, 1928.

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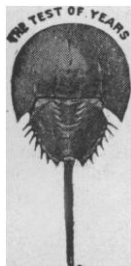
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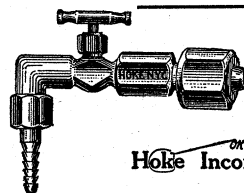
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