CORRESPONDENCE

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A Correction

Sirs,

Professor George A. Barnard of the Department of Mathematics, Imperial College, has pointed out to me that, strictly speaking, the first continuous probability laws were those associated with problems of so-called 'geometrical probability'.

Buffon's celebrated 'needle problem': What is the probability that a very fine needle of length l < d, when thrown on a smooth table, will lie across one of the parallel lines which are drawn on its surface at equal distances d from one another? was posed and solved in 1733. The answer, $2l/\pi d$ (Coolidge, 1925) is based on an equi-probable distribution of all distances x (o < x < l/2) of the centre of the needle from the nearest parallel line. A year later, in 1734, was published Daniel Bernoulli's paper on the mutual inclinations of the planetary orbits. Here we find a continuous probability distribution in more than one dimension and, as Barnard emphasizes, the formulation and application of the first statistical significance test.

Both these publications precede the work by Simpson which I believed to contain the first reference to a continuous probability law ($\mathcal{J}.S.S.$ 13, 60-5). I hope your readers will excuse my forthright misstatement and may I take this opportunity of thanking Professor Barnard for his interesting correction.

> Yours faithfully, HILARY L. SEAL

Yale University Statistical Laboratory 30 Hillhouse Avenue New Haven, Connecticut

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