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Nancy S. Hall* (nhall@udel.edu), University of Delaware Academic Center, P. O. Box 627, Georgetown, DE 19947. What Led Ronald Fisher to the Concept of Randomization? A Re-Examination. Preliminary report.

In his 1925 book Statistical Methods for Research Workers, Ronald Fisher first published the requirement of randomization in experimental design:- elimination of bias derived from the experimental material or from the researcher- possibility of a valid test of significance.No where in Fisher's known correspondence, notes or publications is anything discussing his development of the concept. I have argued, based on Fisher's correspondence with Student (William Sealy Gosset) that this concept came primarily from the mathematics of small samples. Student, a master brewer for Guinness, often had to deal with samples as small as four. But Fisher was also an advisor to the Society for Psychical Research. The Society, founded in 1882, had the same problem as in many other fields of research: when are results significant and when are they merely due to chance? Fisher published three papers discussing the guessing of playing cards. The first of these papers appeared in print in 1924. Both Ian Hacking and Fisher's biographer, Joan Fisher Box, have written that Fisher did not believe in either telepathy or clairvoyance. They have both concluded, apparently based only upon this, that Fisher was not influenced by his work with the Society for Psychical Research. A closer look is needed. (Received September 07, 2008)