Season of Birth of Left-Handers

To the Editor.—Leviton and Kilty have suggested that in a survey of schoolgirls there was a significant excess of left-handers born around the month of November (ARCHIVES 36:115-116, 1979). Regrettably, it is not easy to assess their claim, since they give no data, merely the result of a statistical significance test. Nevertheless, since there were only 33 left-handed schoolgirls in their sample, each month-category can only have contained an average of 2.75 persons. I would like to report results from a larger study of my own, which failed to find any evidence of a significant seasonal trend, either in men or in women.

Data were collected by means of two large questionnaires distributed to undergraduates at the University of Cambridge (I. C. McManus, MA, MB, ChB, unpublished data, 1979). In survey 1, a total of 948 students gave detailed information about their handedness. In survey 2, not only did 511 students give handedness information, but their parents also completed a handedness questionnaire. In the present report, I have concatenated data from the two surveys and from several generations.

Table 1.—Number of Left-Handed Subjects, by Month of Birth, Among Cambridge University Undergraduates

	M		F		M and F	
Month	N	nL*	N	nL	N	nL
January	103	15	53	1	156	16
February	81	14	47	5	128	19
March	82	12	67	6	149	18
April	98	12	61	6	159	18
May	99	14	64	6	163	20
June	81	9	75	7	156	16
July	84	7	53	6	137	13
August	94	12	66	10	160	22
September	74	10	54	7	128	17
October	84	10	61	4	145	14
November	88	10	57	9	145	19
December	81	9	48	6	129	15
Total	**1,049**	**134**	**706**	**73**	**1,755**	**207**

*nL indicates left-handed.

The Table (Table 1) shows the sample size, for men and women, and for both sexes combined, for each particular month of birth. Before testing for seasonality of births of left-handers, it is necessary to test for seasonality of overall births. Using the method of Edwards,[1] there are no seasonal trends among either men or women, or for the two sexes combined ($\chi^2_2 = 1.15$; $\chi^2_2 = 5.08$; $\chi^2_2 = 3.40$ respectively). Of the 1,049 men, 134 (12.77%) were left-handed, whereas of the 706 women, 73 (10.34%) were left-handed. For the men, there was no evidence of a seasonal trend in sinistral births ($\chi^2_2 = 2.17$, not significant). Among the women, there was no significant seasonal trend ($\chi^2_2 = 3.73$, not significant), and in contrast to the data of Leviton and Kilty, the maximum incidence of sinistrality was around the months of July and August. Combining the data for men and women, there was no evidence of a seasonal trend ($\chi^2_2 = 0.24$, not significant).

In summary, the present analysis fails to support the hypothesis of a seasonal trend in sinistral births.

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Diana Lockwood gave assistance in carrying out survey 2.

Table 2.—The Distribution by Month of Birth of Children Who Wrote With Their Left Hand, and the Subsample From Which They Came

	Girls		Boys	
	Left Handers	Total at Risk	Left Handers	Total at Risk
January	3	21	2	20
February	0	30	0	17
March	2	20	3	16
April	3	33	2	23
May	4	32	3	23
June	0	19	3	25
July	1	29	1	20
August	2	32	1	24
September	2	19	3	22
October	7	29	2	28
November	5	28	1	22
December	4	29	3	25
Total	**33**	**321**	**24**	**265**

1. Edwards JH: The recognition and estimation of cyclic trends. *Ann Hum Genet Lond* 25:83-87, 1961.

In Reply.—In an earlier, longer draft of our report, we included a table of our "raw" data. We deleted it because we thought very few people would want to see these data. To date, Dr McManus is the only person who has expressed such an interest. Since