

The handedness of Kerrs—a surname study

The Research Unit

The Royal College of General Practitioners, Birmingham

The association of recognisable physical characteristics as well as particular aptitudes and skills with family surnames is a matter of popular belief with little confirmatory evidence. The physical disability of phalangeal synostosis may have been handed down in the Talbot family through at least 14 generations since 1360. Porphyria variegata, a metabolic disturbance, has been traced back through 12 generations in South Africa to a marriage in 1688, though this condition is not now associated with one family name. The occurrence of porphyria in descendants of George III is both fully documented and much disputed.

An alternative to the genealogical approach to the investigation of surname-characteristic associations is the examination of groups of people with a common surname to see if a given characteristic occurs more frequently among them. This paper reports a study of this kind.

There is a considerable body of folklore evidence to support an association between the characteristic of left-handedness and the Scottish family surname of Kerr, or Carr in its anglicised form. The *Oxford English Dictionary* derives the name from the Gaelic 'Caerr' meaning 'awkward' and cites 'car-handed' as a derivative. The terms 'Ker-handit' and 'carry-handed' are used to describe left-handed persons and 'car-sham-ye' is a term of abuse hurled at lefthanded shinty players by supporters of the opposing side.

While the name 'Poincare' is founded in contemporary France a 'Karre' appears in the Roll of Battle Abbey, suggesting that an early progenitor of the clan came with the Conquest. It appears in Scotland in 1296 when Kers from four Border counties were signatories of the Ragman's Roll. One 'Kerlie', a henchman for Sir William Wallace is held to be a founder of the clan.

Some further evidence comes from the castles built by the Kerrs to protect their lands in the Scottish borders. In those which survive some spiral staircases are built with an anti-clockwise spiral, to be defended, no doubt, by the 'carry-pawed' members of the family whose swordmanship would be impaired were the stairways to turn in the more usual direction.

The Study

On the strength of linguistic and architectural evidence of the past it seemed possible that higher prevalence of left-handedness might be found among Kerrs and Carrs who are alive today and a simple study was designed to put the matter to the test. An editorial was published in the *Journal of the Royal College of General Practitioners* inviting doctors to obtain information on the handedness of families bearing the chosen surname, matching each with a control family of similar composition but of a different surname and with no known Kerr ancestry.

An unexpected consequence of the appearance of this editorial was the attention it received from the lay press first in the United Kingdom and soon afterwards in newspapers in North America. The interest that press and radio coverage of the study aroused led to a response not only from doctors with members of the Kerr clan as their patients but also from members of the family itself. This led to correspondence during which each interested letter-writer was asked to provide information on the handedness of members of his family, and of a control family on a standardised proforma issued by the Research Unit. Thus information was received from two sources doctors and members of a family in which an interest in family history and tradition was found to run strongly. It is realised, too, that the design of the study could have elicited responses from left-handed Kerrs in preference.

The proformas completed by those who reported contained information on right-handedness, left-handedness and ambidexterity. No attempt was made to define these characteristics in the belief that the criteria used by the reporter for the control family would not differ

from those he would have applied to his own. Analysis was undertaken when information had been received on 200 bearers of the surname Kerr (Carr) with their matched controls. Because numbers were not large the ambidextrous group was amalgamated with the "left-handed".

TABLE 1
COMPARISON OF HANDEDNESS WITH CONTROLS

	<i>Kerr/Carr family</i>	<i>Control family</i>	<i>Total</i>
Right-handed	141	178	319
Left-handed & ambidextrous	59	22	81
	200	200	400

Analysis of these data contained in table 1 indicates that there is a significantly (χ^2 , $p < 0.01$) greater number of left handed or ambidextrous people in the sample whose surname is Kerr than in the control sample.

Since many of those who contributed to the study were descended from members of the clan who had emigrated to North America, it was thought of interest to see whether those now living overseas showed the same rates as those now living in the United Kingdom.

TABLE 2
COMPARISONS BETWEEN HOME AND OVERSEAS

	<i>Kerr</i>				<i>Control</i>				<i>T</i>
	<i>Home</i>		<i>Overseas</i>		<i>Home</i>		<i>Overseas</i>		
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	
<i>Right-handed</i>	29	39	33	40	38	57	37	46	319
<i>Left-handed & ambidextrous</i>	11	13	24	11	4	5	9	4	81
	40	52	57	51	42	62	46	50	

Analysis of these data indicates that the "overseas, male Kerr" sample have a greater tendency than any other group to be left-handed or ambidextrous (χ^2 , $p < 0.01$). This could be a consequence of selection in reporting.

Discussion

The Kerr group contains more left-handed persons than would be predicted from the proportions observed in the control group. It appears that this may be due to the relatively high prevalence of male Kerrs who are overseas. Whether left-handedness and a tendency to emigrate are genetically associated remains to be speculated upon.

This trial of method has shown that it is possible to obtain information which can be used in genetic studies in quite a simple way. The principle is capable of further development. The part played by the news media in this study should not be overlooked. The results of the study lend support to the accuracy of evidence based on family folklore and tradition and should be capable of repetition and confirmation on a larger scale. The phenomenon of handedness has been shown to be capable of observational study. Other activity and behavioural patterns also may be found amenable to a similar approach.

A report by Ingram (1969) states that the Kerrs, along with the MacDonalds, McLeans, Campbells and MacGregors, are unusually often referred to a Scottish paediatric clinic on account of speech defects or specific dyslexia and dysgraphia and that family surnames on both sides are now included in routine history-taking. A study of the distribution of left-handedness and ambidexterity among living bearers of these surnames might be usefully undertaken as there

is further folklore evidence that speech impediments may follow pressure on left-handed children to conform to a right-handed world.

Observational studies of the circling habits of children at play and of both wild and domestic animals which have preferred directions of movement have also been suggested and might be undertaken using simple methods of recording and analysis.

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