

Aspects of the Life and Personality of R.C. Geary

JOHN E. SPENCER*

The Queen's University, Belfast

Roy Geary, Ireland's greatest statistician, was born on 11 April 1896 in Dublin. His father attained as a boy a high place in UK civil service exams and began his career in the customs office in London but spent most of his subsequent career in the General Registrars Office in Charlemont House, now the Municipal Gallery, Dublin. His real talent was for statistics and he was associated with the Census of Population in 1901 (as clerk) in 1911 (in charge) and in 1926 (as advisor). As Roy was in charge of the Census in 1956, he laid claim to a family connection with all the Censuses from 1901 to 1956. Roy no doubt inherited a talent for statistics from his father (and also a love of soccer, his father being a founder member of Bohemians AFC).

His mother, Jennie O'Sullivan, was one of five children — four sisters and a brother. The latter and one of the sisters, entered the religious life. Remarkably, each of the other three sisters had a son who acquired an honorary doctorate from the National University of Ireland: Austin Bourke, son of Roy's Aunt Clare (a graduate and short story writer), Edward Carey, son of Roy's Aunt Minnie and Roy himself. Roy, in fact, received three honorary doctorates — from NUI in 1961, QUB in 1968 and TCD in 1973. Among the sisters there was a tradition that an ancestor Horan was a great

*These notes are based on many sources but mainly on two: first, the author's fifteen years of acquaintance and friendship with Roy Geary himself and later with his daughter Clodagh and, secondly, the information contained in a private typewritten manuscript written by Roy. This manuscript is in the possession of the family and was made available by Clodagh, who gave permission for material in it to be used in this article. It is referred to below as MS.

Some of this material was presented orally to the Fifth Conference on Applied Statistics in Ireland in 1985.

mathematician who had preceded Marconi in the invention of wireless telegraphy — a tradition which probably influenced Roy (and his cousin Austin) towards mathematics.

Roy was the eldest of four children — there was his brother Jack, four years younger, an excellent footballer with a legendary left foot and a medical doctor with a practice in London until his retirement to Dublin and two younger sisters Clare and Kathna. The children, influenced by their mother, a pianist, learnt music and on occasions formed a piano quartet with Roy playing the cello, Clare the piano and Jack and Kathna the violins. Inevitably, the quartet would sometimes break up amidst recriminations. Roy's love of music was to remain with him all his life. In 1927, when he was about thirty, he married Mida, a girl with substantial natural musical talent especially in singing and an active involvement in the Rathmines and Rathgar Musical Society. Hilton Edwards and Michéal MacLiammoir had in 1925 opened the Gate Theatre in Dublin and she was also to work there with them.

Roy's primary schooling took place at the Model School, Glasnevin, his secondary at the Christian Brothers School, North Richmond Street. The Principal at the Model School, Mr Fitzpatrick, was an important influence as was Brother Walsh, especially in mathematics, at Richmond Street.

He entered UCD in 1913 as a Dublin Corporation and College Scholar and got a First in Maths and Mathematical Physics in 1916 with an M.Sc. in Maths the following year. This led to the award by the university of a Traveling Studentship in 1918 and he continued his postgraduate mathematics studies at the Sorbonne, University of Paris from 1919-21. Undoubtedly, it was during these years in Paris that he acquired his fluent French and his love of France and her people — “my beloved France, the most civilised if not the most unselfish of countries” (MS 226). In later years he regularly read French newspapers and novels to retain his fluency.

His first employment was to a lectureship in Mathematics and Mathematical Physics at the University College of Southampton in 1922.¹ In the following year he returned to Ireland to join the staff of the Statistics Branch in the Department of Industry and Commerce. (In 1937 he was awarded D.Sc. by NUI on his published work.) He remained there until 1949 apart from one year's leave of absence, 1946-47, spent in Cambridge as Senior Research Fellow in the Department of Applied Economics, then being set up by Richard Stone, the 1984 Nobel Laureate in Economics. On returning from Cambridge

1. There appears to be some doubt as to whether he actually took up this appointment. It is known that he accepted a job offer there and that he was later released from his contract early. If he was there, it was probably for some months in late 1922.

he was appointed Director of the Statistics Branch and in 1949 became the first Director of the newly established Central Statistics Office in the Department of the Taoiseach. He retired from the Civil Service in 1957 to take up appointment as Chief of the National Accounts Branch, UN Statistical Office in New York and remained there until 1960. During this period, he was also Visiting Professor of Econometrics at the New School of Graduate Social Studies, New York, 1958-59. He returned to Dublin in 1960 to become the first Director of The Economic Research Institute. He was to remain there until his death on 8 February 1983, as Director until 1966 and from then as Consultant to the Institute, renamed The Economic and Social Research Institute on 9 November 1966 — who honoured him at that time by establishing the annual Geary Lecture.

He received many other honours during his long career. He was an Honorary Fellow of the Royal Statistical Society and the American Statistical Association. He was elected to a Fellowship of the Econometric Society and served as a Council member from 1962-64. He was Past President of the Statistical and Social Inquiry Society of Ireland and of the International Statistical Institute and Past Chairman of Council of the International Association for Research in Income and Wealth. He was Member of the Committee of Experts on the European Social Charter (Council of Europe) and in 1981 was awarded the prestigious Boyle Medal of the Royal Dublin Society.

These honours flowed from his work and particularly from his work in mathematical statistics. This work has been described and evaluated elsewhere (e.g. Spencer, 1976, 1983 a, b, c, 1990; Stone, 1987 and in this issue). His most creative period was in the 1930's and 1940's which produced a superb stream of papers and results. He continued working on mathematical statistics (always motivated by application) until his death in 1983 but increasingly from around the early 1960's allocated his time to practical economics (he abhorred most economic theory).

Not surprisingly, he was a keen admirer of abstract mathematics which he regarded as an art form with its own "sublime right to exist". He did not, however, believe in mathematics for its own sake in statistics (or even less in economics). He told me once of Fisher asking him what was the difference between statistics and mathematics. While he had forgotten the details of his answer, he was sure that he would have stressed that mathematics have no place in statistics except in application or by a clear showing of relevance to a statistical problem.

There is no doubt that he enjoyed a mathematical challenge. He has described his finding the sixth moment of b_2 (the kurtosis measure) under normality as being a response to such a challenge. Yet, even here, application was just below the surface — in this case approximating the distribution of b_2

and testing for normality, a topic of great importance in statistical inference. One of his major contributions in this area was the ratio of mean deviation to standard deviation as a normality test. This "Geary ratio" tended to $\sqrt{2/\pi}$ under normality. After forty years, he could still recall its value to ten decimal places. He had a love of numbers and would write to *The Irish Times* on number games and curiosities. He delighted in statistical measures and firmly advocated getting to know one's data by simple analysis and examination before starting on more sophisticated techniques.

He always seems to have had a need to feel that he was useful. This desire may have increased in later years when he became increasingly involved in applied economics. He spoke in 1982 of his pleasure that the ESRI were committing significant resources to analysis of unemployment and he anticipated the near futurity of the day when tax payers will ask "What use are you?" As a result, his own economics always tended to be very empirical and number based, often with an emphasis on forecasting and on policy making. That he had little knowledge or respect for economic theory in this is perhaps curious, given the enormous practical importance that he obviously saw in statistical theory.

While a compulsive worker to the last (more than half of his some 112 papers were published after he was 65), forever worrying about all kinds of mathematical, social, economic, political and statistical problems, he had several paramount interests of a different kind. He loved children, in particular his own and his grandchildren. Clodagh has described to me some of his highly active and inventive games and stories and how thrilled and excited the children became. He was an avid reader of detective stories and thrillers (Agatha Christie, Rex Stout, George Simenon) and of novels (especially Austen and Trollope). He enjoyed crossword puzzles, meticulously only filling in letters at intersection points until every clue was solved when he would allow himself the luxury of filling in the whole grid. He loved soccer, first as an active player on the UCD team, later as a watcher with BBC's Match of the Day "helping to make his week". He had an abiding devotion to music and to the theatre — indeed to the arts in general, with a keen interest in ballet and painting. (*View of Delft* by Vermeer was one of his favourite pictures.) Perhaps oddly, he had no interest in the cinema at all.

In music, while he learnt the piano and cello at an early age, he regarded himself as a poor executant. He recalled being dismissed from Robert O'Dwyer's College choir for, according to family folklore, singing a bass line an octave too low. (He had a deep resonant voice.) His piano playing met with equal lack of success, even his mother not producing the desired praise after substantial practice at Rubinstein's Melody in F. (Clodagh remembers playing the piano duet arrangement of the Allegretto from Beethoven's Seventh

Symphony with her father — he playing the more demanding primo part while she contributed the chords in the bass.) He did, however, play the cello in public on at least one occasion. At a college concert, the cellist took ill and Roy had to substitute. His worry was a piece for Soprano solo accompanied by orchestra and in which there was an obligato passage for solo cello at the end. "The lady sang very nicely as my doom approached. The cello obligato was to accompany that penultimate top note. As he had at rehearsal, Bobby beat me in. I did not see him, avoided his eye and baton by looking at the President's wife in the front row, and played the safe key note" (MS 252).

While Roy played the piano for his own amusement for years, he was a keen listener throughout his life, despite increasing problems with his hearing and pervasive interference (some of it breaking through from a local pop station) on the BBC Third Programme (later Radio 3). His tastes were reasonably conventional although influenced by his Paris period when he had much opportunity to hear great music under the baton of the famous Gabriel Pierné at the Colonne Concerts. He had accordingly a lifelong devotion to Debussy and Ravel and other French Composers as well as to the great classicists and to Wagner. In later years he "discovered" other composers including Franck, Mahler, Prokofiev, Sibelius, Strauss and Stravinsky. He was anxious not to judge a work on first hearing although, interestingly, thought there would often be a clue or two, noticed at once. Debussy's *La Mer* (1904) was one of his great delights though at first hearing in Paris he had sympathised with a listener in the row in front who had added "de" to the title on the programme notes (MS 275).

Towards the end of his life he spoke of hoping to understand Britten and Shostakovich and with his usual open mind was not opposed to experimentation and innovation by composers and could listen to the ultra moderns "without resentment". But for the greatest moments, the "ecstatic" moments as he called them, he turned to Wagner and to the great classicists, Bach, Beethoven, Schubert, Mozart and Brahms.

His lifelong love of the theatre was born when he was aged about six or seven and saw *Peter Pan* flying across the stage to land on the mantelpiece. The Abbey Theatre, founded by Lady Gregory, Synge, Yeats and others in 1904, was to him "a way of life". He easily recalled Yeats' presence as he often came in at the front stalls entrance and looked around at the audience, with more than a touch of the poseur. He also recalled Yeats' way of reciting his poetry in a monotone and how the young people adored him. Curiously, Maud Gonne, whom Yeats had met in London c. 1890, who rejected his offers of marriage and who inspired much of his work, wrote to Roy when he was secretary to SSISI asking for a copy of the journal and explaining that the older she got, the more important did the study of social sciences appear to

her (MS 238). O'Casey also provided clear personal memories. Roy recalled that *Juno and the Paycock*, produced for the first time in the Abbey in March 1924 was coolly received by the press but that news of it quickly spread through Dublin and he went with a friend to its third performance. The theatre was packed, he had standing room only but regarded it as his major theatrical experience. He also described leaving the Abbey one evening with the producer and O'Casey, the latter describing the difficulties he was having getting beyond the card-playing scene in the attic of *The Plough and the Stars* (to be premiered in the Abbey in February 1926). Roy was himself a keen actor, playing parts at the Abbey and later at the Gate. Indeed, on the evening he left the Abbey with O'Casey, he had earlier disastrously forgotten the lines with which he was to open the play.² In the Gate he once played the sculptor Martellus in Shaw's *Back to Methuselah* (perhaps c. 1926) and had the line he later recalled as "Let us go into the grove and discuss mathematics which I have neglected too long".³ This pricked his conscience mightily (he had probably published at most one paper at the time) and one night during the show he went home and tried to see if he could work out the remainder in Taylor's theorem. He could, and was led towards mathematical statistics (MS 245).

Regarding his tastes in theatre, they were, like his musical tastes, wide-ranging. He thought highly of Shaw, Chekhov, Shakespeare, of course, O'Casey and Noel Coward. Perhaps his views lacked the analytical details of a theatre critic and perhaps he failed to respond positively to modern movements and trends in theatre (away from personality cults in actors, for example) but for freshness and enthusiasm and interesting accounts of the old days in Dublin, he was of unflinching interest.

Roy was intensely interested in politics, if often contemptuous of politicians. This interest ranged over a wide variety of issues including Middle East politics (one of his rules was "keep out of the politics of other countries") and the vast expenditures by the superpowers on defence spending and nuclear weapons. He wrote many letters to *The Irish Times* on these and other issues and indeed a letter in which he criticised the "criminal idiocy of the superpowers in this vast expenditure" appeared in *The Irish Times* the day before his death.

Perhaps his deepest political concern was centred on Ireland and the Northern Ireland problem. His stated ambition in *Who's Who* in the Republic

2. It is not known in which play he was acting that evening.

3. The passage actually is "I too will leave women and study mathematics, which I have neglected too long". It continues "Farewell, children, my old playmates. I almost wish I could feel sentimental about parting from you; but the cold truth is that you bore me. Do not be angry with me: your turn will come".

of Ireland was "to bring some sense into public affairs". He was present at the famous meeting at the Rotunda Hall on 25 November 1913 which was infiltrated by the Irish Republican Brotherhood using MacNeill and his Gaelic League as a front and at which the Southern Volunteers were created as a reply to the potential threat of the Ulster Volunteers. Many of these Volunteers, along with Connolly's Citizen Army, were to make up the Easter Rebellion two and a half years later, a time when Roy was in his final undergraduate year at UCD. He was quite clear that public opinion was highly unfavourable to the rising (he himself was against it) but the manner, not the fact of the subsequent executions, and clumsy attempts to introduce conscription, changed this. Politically, Roy leaned towards Arthur Griffith and his policy of non-violence but sympathised with the extremists and opposed Redmond and the Irish Party. While in France for the most of the subsequent Anglo-Irish guerilla war, he was certainly strongly nationalist and felt there was something real to fight for.

He was in Dublin at the time of the Treaty of December 1921 and during the early part of 1922, prior to taking up duties in Southampton (see footnote 1 above). He was fervently Pro-Treaty despite its arrangements on the ports, the oath and Northern Ireland and seriously considered joining the pro-Treaty side in the Civil War. One suspects that it was with relief that he found the recruiting office in Brunswick (now Pearse) Street closed one Saturday afternoon when he went to join the Pro-Treaty army and he was never in fact to carry a gun. When he took up duties in the Irish Civil Service, the war was over with Arthur Griffith President of the Free State. His Pro-Treaty beliefs strengthened over the years to the extent that he would describe the Treaty as a complete victory and the most important in recorded Irish History (MS 84). Any attempt to establish an all-Ireland Government then, in his view, would have led to a civil war involving the North and destroying the Treaty. Now the economic argument, with vast British subsidies to the North, he thought strengthened the case immeasurably. He was extremely critical of what he termed the "Hanker", the desire for (political) unification although he longed for unity in friendship and co-operation. His vehement opposition to the Hanker does not mean that he was uncritical of the Unionists, of course. He had a strong belief in democracy provided there was no permanent majority. The Unionists, he thought, were more to blame for the problems within Northern Ireland by overplaying their hand — but the minority were also to blame for not playing at all and the people in the South had a share of his criticism for accepting the account of the Northern minority uncritically. This latter point enshrined what, for him, was an utterly crucial principle, viz. that bias is involved where self interest or group interest is involved. He applied this principle extremely widely to all sorts of

conflict situations, including social and economic disputes such as arise from labour management divisions which he regarded as absurd. He deduced that unilateral action, such as strikes, was socially immoral and suggested instead that both parties in a dispute, if dialogue failed, should agree to binding arbitration. The arbiters would be disinterested parties and have available to them research resources (as part of which he offered himself). Another principle arose in this connection which he repeated often. "My deepest belief is that one cannot aspire to suggest improvements in anything whatever without trying to understand why things are as they are. Having established this as far as possible, the whole emphasis should be, not to the past, but to the future". The application to Irish Politics was clear. He was anxious that hatred of England be replaced with love of Ireland and that the national attitude towards Ireland's history, which tended towards hagiography of failure, should be radically altered.

Roy certainly considered himself a true patriot. Obviously not insular, he devoted enormous quantities of effort in his work — nearly all of which was done in Ireland — to furthering the economic and social condition of the Irish. He delighted in hearing of successes by Irishmen in any walk of life and longed for the unity of friendship, unhindered by the Hanks, with the North. He was gratified by Irish unity in rugby and distressed by its absence in international football. He had a suspicion that he had been a contributory cause of the latter. In 1921, Ireland, then one, had played France in Paris. He with three other students attended the match, one at each of the four sides and each one with a Tri-colour. The Irish team with ten Northerners, refused to come on to play until the flags were removed which they duly were by the police. Apparently, at the time this incident was regarded as a contributory factor in the sequence of events that led to the divorce in soccer. Roy's memories of it, with fascinating detail, appear in a letter to *The Irish Times* of 8 January 1982. It is difficult to check details at this stage. Certainly trouble had occurred earlier with crowd riots at a Belfast Celtic — Glentoran Irish Cup semi-final of 1920 in Belfast leading to the abandonment of the game and ultimately the award of the Cup to Shelbourne by default. In the following season Shelbourne, ordered back to Belfast to replay a drawn semi-final against Glenavon, refused. Other Southern clubs supported their action and withdrew from the IFA to form a new association, the FAIFS. Various efforts to heal the breach took place over the next three years including a meeting at the Shelbourne Hotel in Dublin in 1923. Captain James Wilton leading the Belfast delegation left with no compromise achieved. The political tensions of the time undoubtedly operated against compromise but it is possible that the Flag incident had some effect. It seems to have been an amateur international in Paris in 1921 with players predominantly from the

IFA attached to clubs in the North and accordingly in the centre of the controversy. In any case since then both associations IFA and FAI (successor to FAIFS) nominate separate teams although until 1950 Republic of Ireland players would play for the IFA nominated team (and Northern Ireland players on the FAI nominated team once, in 1946) when the intimidation of players ended the practical co-operation. (IFA and FAI first played each other as League teams in 1927 — FAI 3 IFA 1.)

Roy believed in and took comfort and authority from the Christian faith. He had no trouble with the infinite but hesitated to apply characteristics to it. He believed faith to be a virtue for he thought faith required effort. Broadly, he was happy to be within the Catholic Church although he thought the church too slow to change in a changing world and too narrow on sexual issues. He was a firm believer in the Ten Commandments and the Gospels in particular as a foundation for individual and social morality and was fond of remarking that foolishness is labelled as a sin in Mark's Gospel Chapter 7. He thought that there could be no statistics in Heaven but hoped there would be statisticians. It is certain that his own strong sense of duty and morality influenced his desire to be useful and efficient, a desire aimed not only at himself but at others, especially those under him. He suggested a tax on land valuation, not output, in order to improve productivity on farms. He worried about inefficiencies in industry implying lower output or higher prices to consumers than was necessary. He was concerned about productivity in the Civil Service and other sectors where inefficiencies are not "punished by the market". As Director of the CSO, he attempted measurement of productivity in terms of number of forms dealt with and welcomed inspection from outsiders. He felt that efficiency and job satisfaction were much the same thing. He decried anonymity in the Civil Service, suggesting that many of the reports should be signed thereby giving civil servants, generally abler than elected representatives, more interest in their work and more opportunities for career changes. Generally he thought government, as a monopoly, morally suspect and advocated that financial control should be under an authority aloof from politics and elected representatives to enable hard decisions to be taken more easily. For the fact that the Irish Civil Service was not corrupt on and after Independence, he gave much credit to the influence of J. Brennan (Secretary, Department of Finance and later Governor of the Central Bank) and J.J. McElligott (Brennan's successor in both positions). It is not so much that there would have been corruption without them, but more that financial irregularity would have been "inconceivable" under them (MS 71), both men who believed in financial austerity and balanced budgets.

Roy was generous in several respects of the term. He was encouraging to and unsparing of his time with young academics and researchers, irrespective

of their status. Although he had no great need for people, he greatly enjoyed meeting old friends. He could equally be generous with people he had not met. As a student in Paris, he sent a contribution to Siegfried Wagner in Bayreuth, then in financial straits. Siegfried, the illegitimate son of Richard Wagner and Cosima von Bulow had taken over from his mother charge of the Bayreuth Theatre and Festival in 1908. Roy's period in Paris, 1919-21, was a crucial period for the famous theatre which had opened in 1876 with the complete *Ring* cycle and huge financial losses. Performances in the theatre had ceased with the World War and the financial health of Cosima and Siegfried, who owned the assets of the theatre, declined accordingly. With the aid of gifts such as that of Roy, Siegfried was able to organise the re-emergence of the Festival in 1924 with performances of the *Ring*, *Parzifal* and *Meistersinger* and set the enterprise on a successful footing by the time of his death in 1930.

Roy Geary was a man of immense talent. His work on mathematical statistics was of top international calibre. He regarded it as the greatest thing in his life and it will certainly ensure that he will not be forgotten. But he was also a man of great charm and full of interest, enriching the lives of those who encountered him. It is the author's hope that these notes, though sadly inadequate, will help to preserve some aspects of his personality for those who never knew him.

REFERENCES

- SPENCER, JOHN E., 1976. "The Scientific Work of Robert Charles Geary", *The Economic and Social Review*, Vol. 7, No. 3, pp. 233-241.
- SPENCER, JOHN E., 1983a. "Robert Charles Geary — An Appreciation", *The Economic and Social Review*, Vol. 14, No. 3, pp. 161-164.
- SPENCER, JOHN E., 1983b. "Robert Charles Geary. Mathematical Statistician. 1896-1983". *Irish Mathematical Society Newsletter*, Vol. 8, pp. 12-20.
- SPENCER, JOHN E., 1983c. "Robert Charles Geary 1896-1983", *Econometrica*, Vol. 51, No. 5, September, pp. 1,599-1,601.
- SPENCER, JOHN E., 1990. "Robert Charles Geary: Mathematical Statistician and Economist" in C. Mollan, W. Davis and B. Finucane (eds.), *More People and Places in Irish Science and Technology*, Royal Irish Academy, 1990, pp. 66-67.
- STONE, J.R.N., 1987. "Robert Charles Geary (1896-1983)" in J. Eatwell, M. Milgate and P. Newman (eds.), *The New Palgrave: a Dictionary of Economics*, Vol. 2, London: Macmillan, p.491.