

J. L. Synge was educated at Trinity College, Dublin, where he graduated in 1919. Working in applied mathematics, he held positions at Toronto University, Ohio State University, and Carnegie Institute of Technology before returning to his native Ireland, where he is now Professor Emeritus at the Dublin Institute for Advanced Studies. Among his many distinctions, Professor Synge gave an invited lecture at the 50th Anniversary celebration of the AMS. He is a nephew of the Irish playwright J. M. Synge and the father of Cathleen Morawetz.

For the 100th Birthday of the American Mathematical Society

J. L. SYNGE

It must have been in December 1921. The AMS was holding a meeting in Toronto, and I had been instructed to accompany Oswald Veblen as we walked down University Avenue to a luncheon party. I was then 24, brash, inexperienced and rather overconfident as to my mathematical skill; he was 41, a geometer of established reputation, and, from the perspective of my youth, quite an old man. How should I break the conversational ice? I ventured the remark that it was a good thing to visualise in Riemannian geometry — I knew that this was a subject then much in vogue at Princeton. Veblen replied that visualisation was completely useless, or words to that effect. I have no recollection as to whether and how the conversation continued on our walk, but I was in a ferment to prove Veblen wrong, and that evening accosted him rather abruptly with the contention that in space-time the Ricci tensor and the metric tensor defined a set of four principal directions. He seemed surprised at this and suggested that I should write it up and he would get it published. On looking up the literature I found that the result was well known, but that a similar more complicated result was not. So I wrote it up and sent it to Veblen; he was as good as his word, and so my first paper appeared in the Proceedings of the National Academy of Sciences.

I relate this because Veblen remained throughout his life a good friend to me, and I owe this to the AMS. I had come out from Dublin in 1920 as an Assistant Professor at the University of Toronto. Academically the

atmosphere was bleak. There was no one with whom I could discuss the mathematics which interested me. That meeting of the AMS introduced me, not only to Veblen as described above, but to a number of mathematicians considerably older than me, who treated me with great consideration and kindness. I mention in particular L. P. Eisenhart.

Way back in the 1920s everything was on a much smaller scale and more intimate. Before I had left Dublin, I had written a paper on the stability of the bicycle, and in Toronto I wrote a paper on basic tensor calculus. I now offered these to the AMS for publication. Both were rejected. The interesting fact is that they were not refereed anonymously: the bicycle was handled by G. D. Birkhoff and the tensor paper by Eisenhart. I did not dispute Birkhoff's judgment that the paper was too particular, but I have often wondered since to what extent he was acquainted with non-holonomic systems. Eisenhart considered my paper lacking in novelty, and suggested I seek its publication as an expository one. I was too conceited to take this wise advice. Both the manuscripts have now been lost, and I mention them here in order to illustrate the intimacy of the AMS sixty-odd years ago. I have always disliked refereeing and have done very little of it; but I strongly disapprove of the anonymity of referees as I would disapprove of the anonymity of sentence-passing judges in general.

It is well known that, as one grows old, one's memory decays in a strange way. Early events, or some of them, remain fairly clear, whereas more recent events fade out, and one has to try to keep them in order by fixing dates. I have a jumbled memory of meetings of the AMS after returning to North America from Ireland in 1930, of driving over icy roads in December, of fighting hay-fever in summer, of giving an invited lecture in New York at the 50th anniversary, of being captive audience to Norbert Wiener talking to me about hydrodynamics and me not understanding a word, of watching Courant sleeping when I was at the blackboard, of being on the Council during a heated debate on a topic I have completely forgotten, and so on. There remains a general impression that, as meetings became larger, so my enjoyment waned: the old intimacy was eroded.

In what units are we to measure time? A 100th birthday suggests we should think in centuries. On that scale I am virtually as old as the AMS. That great Irish mathematician Hamilton drank himself to death less than one third of a century before I was born. A century after Lagrange died, I was a schoolboy. Twenty-three centuries take us back to Euclid. The 200th birthday of the AMS is, so to speak, just round the corner. If a contribution from me is desired on that occasion, I shall be happy to supply one, provided I am in a position to do so: otherwise, reprint this one.