## BIOGRAPHY

Constance van Eeden was born in Delft, The Netherlands, on April 6, 1927. When she was seven the family moved to the town of Bergen op Zoom, where she completed her high-school studies, and spent the war years. A happy memory is the day when the town was liberated by the Canadian troops, on October 27, 1944.

She passed her *candidaats examen* in 1949 at the Universiteit van Amsterdam, and worked on her *doctoraal examen* and Ph.D. while being employed by the Mathematisch Centrum (now Centrum voor Wiskunde en Informatica (CWI)) in Amsterdam. She earned her Ph.D. *cum laude* in 1958 as one of the four Ph.D. students of David van Dantzig, whose centenary was celebrated in September 2000 in Amsterdam. For this occasion Constance compiled the van Dantzig scientific tree which comprises more than 350 names. Constance's branch (39 members) is included in this volume.

In 1960, Constance was invited to Michigan State University as Visiting Associate Professor and there she met her husband, the gifted statistician Charles Kraft, who died untimely in 1985. After a short stay at the University of Minnesota, Constance and Charles moved to Montréal in 1965, at the initiative of several people, mainly Jacques St-Pierre, Maurice L'Abbé and Anatole Joffe. Montréal was then put on the map as a center for academic statistics. After their arrival, the city started to be visited by world famous statisticians like Jerży Neyman, Lucien Le Cam, Jároslav Hájek, Herbert Robbins and Hermann Chernoff, and bustled with scientific statistical events. In the Province of Québec, her contribution to the development of statistics was immense. In recognition of her merits, the Département de mathématiques et de statistique at the Université de Montréal established, in 1998, the "Prix Constance van Eeden" to be awarded to the best B.Sc. graduate in statistics or actuarial science. She is also Professeur émérite at Université de Montréal since 1989. She has held visiting positions at the University of Wisconsin and at the Université de Rennes. Since her retirement in 1989, she is Adjunct Professor at Université du Québec à Montréal and had the same title at the University of British Columbia until 1995 when she became an Honorary Professor at that same university. Each year she spends the fall term at UBC where on top of research she naturally plays the role which suits her best, that of the knowledgeable scientist good to have around!

Her career as a researcher spans over 50 years, with the years after retirement as active as ever. Her main co-authors are Charles Kraft and Jim Zidek. An important feature of her profile as a researcher is her ability and interest to cover the whole spectrum of a problem: in many projects she goes from a deep and careful analysis of its theoretical aspects, to answering the question on how the new method could be implemented and to eventually producing

numerical illustrations. All her collaborators know her highly professional approach to research, her keen sense of precision, and her generosity in acknowledging past contributions. Most and foremost, she would never rush into publishing results which have not been thought over long enough: drafts of papers have to sit in a drawer for a while. Her services to research are no less remarkable. She was an Associate Editor of the Annals of Statistics (1974–1977), of the Canadian Journal of Statistics (1980–1994) and of the Annales des Sciences Mathématiques du Québec (1986–1998). She has been a General Editor of Statistical Theory and Methods Abstracts since 1990. She has also been an active member of various committees and councils, in Canada and in the USA, like the Statistics Grants Selection Committee of the Natural Sciences and Engineering Research Council of Canada, and the Councils of the Institute of Mathematical Statistics and the Canadian Mathematical Society.

Constance van Eeden's main fields of interest are estimation in restricted parameter spaces, decision theory, nonparametrics and selection procedures. She has also published papers in other subjects, theoretical and applied, e.g. density estimation and bio-assay. It is interesting to note how the four main themes mentioned above pop up at various times in her career, sometimes separated by 20 years or more. For example, in her thesis, which led to quite a few papers in the years 1956–1960, Constance proposed maximum likelihood estimators of ordered parameters, developed tests based on these estimates, and treated various important special cases, like ordered means and variances of normal variates. As such, she is a pioneer in this field. The same subject is present later in the series of papers based on Alec Charras's Ph.D. thesis (1990's). Finally, during the past eight years, she has been publishing regularly on this topic, mainly from a decision theory standpoint. Still, to most people she has been the wizard of nonparametric statistics, a field where she has many seminal contributions, published in first-class journals, like the Annals of (Mathematical) Statistics and JASA. Some of these papers are the result of her fruitful professional collaboration with Charles Kraft. In fact, she has kept publishing in the subject until the present day, while her first papers in nonparametrics go as far back as 1958, and these contributions are quoted in Hájek-Šidák's classic book on rank tests. There is no doubt that this reputation was reinforced by the fact that quite a few of her students, and also students of her students, (her "children" and "grandchildren," as she likes to refer to them) worked and continue to work in nonparametric testing and estimation. As such, one could say that she is the founder of the Québec school in nonparametrics.

All those who followed a course with Constance van Eeden remember her lectures, clear and easy to follow, most likely the result of very careful preparation. Many years ago, Constance told some of us what she consid-

ers to be a good lecture: the listener follows easily and gets the feeling he understands everything, but afterwards, when he goes through his notes, he realizes that there is much more to learn and a lot of effort is needed. By this definition, Constance van Eeden was a superb teacher and lecturer, and this great talent explains why so many students wanted to pursue graduate studies under her supervision. During her career at Université de Montréal, she had 12 Ph.D. students (two more after her retirement), and 19 M.Sc. students. She was an exemplary and quite unique advisor, who instilled in her students her professionalism and sense of rigor. During her birthday symposium in May 2002, there were numerous references to her generosity and patience, her readiness to listen and to help any young researcher, whether her student or not, her willingness to answer various questions in statistics, where her culture is impressive. All her colleagues and former students remember her office at Université de Montréal, the door wide open, for the student and the visitor alike... It is interesting to note that in Canada, over time, her Ph.D. students have held academic positions from Vancouver to St. John's, Newfoundland... in accordance with Canada's motto: *A Mari usque ad Mare*!

The importance of Constance's many contributions was recognized by the statistical community; she is Fellow of the IMS (1972), of the ASA (1972), and an Elected member of the ISI (1979). In 1999 she received the "Henri Willem Methorst Medal" for services rendered to the ISI, while in 1990 she was awarded the highest Canadian recognition of a distinguished career in statistical research, the Gold Medal of the Statistical Society of Canada. The citation for the Gold Medal reads as follows:

> *To Professor Constance van Eeden for her achievements in statistics, particularly in the area of non-parametrics, for her leadership in the development of graduate programs in statistics and for her countless contributions to statistical activities.*

The special relationship of Constance with her colleagues and her students is largely due to her personality: shy and discreet, understanding and compassionate, but vigorously protesting lack of rigor, which she imposes firstly and mostly upon herself. Constance is very proud of her students, her daughter, Kari, her step children (Kraft's daughters and son), and in all she is very supportive of the younger lot. Constance thinks of herself as an inveterate problem solver, and thus it is not surprising that two of her favourite pastimes are crossword puzzles (she masters the ones in the Sunday New York Times), and... knitting. But in order to really know Constance, one should visit her retirement paradise, the bucolic well-preserved village Broek in Waterland, north of Amsterdam. Only 15 minutes by bus from the busy Amsterdam Centraal Station, Broek lives at a slower pace, surrounded

by green pastures where cows graze; the post office is at the grocer's. As for the beautiful drapes which hang at all windows in Constance's house don't wonder who has made them: it is Constance van Eeden, *une grande dame de la statistique.*