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A Conversation with George G. Roussas

Debasis Bhattacharya and Francisco J. Samaniego

Abstract. George G. Roussas was born in the city of Marmara in central Greece, on June 29, 1933. He received a B.A. with high honors in Mathematics from the University of Athens in 1956, and a Ph.D. in Statistics from the University of California, Berkeley, in 1964. In 1964–1966, he served as Assistant Professor of Mathematics at the California State University, San Jose, and he was a faculty member of the Department of Statistics at the University of Wisconsin, Madison, in 1966–1976, starting as an Assistant Professor in 1966, becoming a Professor in 1972. He was a Professor of Applied Mathematics and Director of the Laboratory of Applied Mathematics at the University of Patras, Greece, in 1972–1984. He was elected Dean of the School of Physical and Mathematical Sciences at the University of Patras in 1978, and Chancellor of the university in 1981. He served for about three years as Vice President-Academic Affairs of the then new University of Crete, Greece, in 1981–1985. In 1984, he was a Visiting Professor in the Intercollege Division of Statistics at the University of California, Davis, and he was appointed Professor, Associate Dean and Chair of the Graduate Group in Statistics in the same university in 1985; he served in the two administrative capacities in 1985–1999. He is an elected member of the International Statistical Institute since 1974, a Fellow of the Royal Statistical Society since 1975, a Fellow of the Institute of Mathematical Statistics since 1983, and a Fellow of the American Statistical Association since 1986. He served as a member of the Council of the Hellenic Mathematical Society, and as President of the Balkan Union of Mathematicians. He is a Distinguished Professor of Statistics at the University of California, Davis, since 2003, the Chair of the Advisory Board of the "Demokritos Society of America" (a Think Tank) since 2007, a Fellow of the American Association for the Advancement of Science since 2008, and a Corresponding Member of the Academy of Athens in the field of Mathematical Statistics, elected by the membership in the plenary session of April 17, 2008.

Key words and phrases: Personal and professional life, milestones, Marmara, Thessaloniki, Athens, Berkeley, Madison, Patras, Davis.

This conversation took place in George Roussas' office at the University of California, Davis, on the 15th of May, 2009.

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EARLY YEARS AND FAMILY BACKGROUND

Debasis and Frank: George, it's a pleasure to have this opportunity to chat with you about your life and career. We're coming at this conversation from different angles, one of us as a regular research collaborator over the last ten years and the other as a long time departmental colleague. Our common ground is that we are both long-time friends and admirers.

Let's start at the beginning. Tell us a bit about your early days.

FIG. 1. *George Roussas* (*in the middle of front row*) *in the* 5*th or* 6*th grade in Thessaloniki*, 1944–1945.

George: Let me say, first, that I'm greatly honored that you asked me to have this conversation, and I have been very much looking forward to it.

I was born in the city of Marmara, broadly in a family of educators. Marmara is a small community (of maximum population of about 1350) on the Greek mainland. It is widely thought to be within the location of Achilles' ancient kingdom. I attended the elementary school in Marmara and in Thessaloniki, where part of my family was. My high school education was also divided, started in Thessaloniki and completed in Athens. The schooling was highly structured, as was typical in Greece, and very rigorous. The environment in Marmara was idyllic, and I still have very fond memories of it.

Debasis and Frank: What can you tell us about your family background?

My paternal grandparents had three sons (my father Gregory and my uncles Hercules and Constantine). These two uncles obtained university degrees, but my father was business oriented. In the early 1920's he left Marmara and went to Thessaloniki, where he entered in the dairy business. He had considerable success in this, holding a prominent place in the distribution business in Thessaloniki for almost two decades. Indeed, he was a self-made millionaire! My parents (Gregory and Maria) had four children, daughters Aggeliki, Demetra, and Stella, and myself. Our family moved to Thessaloniki, and later to Athens, "in stages," as the locations where my father's varied business interests were centered changed over the years. Of course, a civil conflict in the country had its influence on this as well.

My father was a product of the classical European liberalism, which in the 1920's and early 1930's was well represented in Greece by a remarkable statesman, Eleftherios Venizelos. My father was an active member of the liberal party and a staunch supporter of Venizelos. He retained this position throughout the late 1930's, when Greece was run by a politician turned dictator, and during World War II, and later, when Greece was savaged by a civil war. His political liberalism and outspokenness cost him dearly. During the German occupation of the country, he was sent to prison (released as a political prisoner at the end of the war, upon the liberation of the country). During part of the civil war, he was exiled to a remote deserted island by the governing party. The fact that my father saw some glitter of light in the repressive soviet system, such as the availability of abundant opportunities for well-qualified students to pursue their educational goals, did not sit well with the party in power at the time. From a financial viewpoint, he believed strongly in currency rather than in property. Consequently, his hard-earned "fortune" became worthless with the nullification of the Greek currency during World War II, and a millionaire became virtually penniless! It was in this kind of environment in which I grew up. This environment shaped my determination to distance myself from any business per se and to pursue education to its highest level possible.

BECOMING A MATHEMATICIAN WHILE SEARCHING FOR ITHACA

Debasis and Frank: What were your main interests when you entered college? Did you have strong feelings about what you wanted to specialize in?

George: In high school, I developed a strong affinity to the humanities and social sciences, with marginal interest in mathematics and physical sciences. Soon, I discovered that any weaknesses in mathematical and physical sciences would deprive me of many options in later years. So, I decided to intensify my efforts, and graduated with a strong record in all my subjects. This standing put me on a solid position to compete for a position in the air force academy; it was my youthful dream to become an air force officer. But that dream would never come to fruition. In addition to succeeding in a competitive examination, I would also have to have the written consent of both of my parents. I thought I could talk my father into it, but my mother was adamantly opposed to the idea. Instead, I was advised by my uncle Hercules (the dean of the classicists, as he was often referred to) to take the entrance examination in the department of mathematics at the University of Athens. Reluctantly, I took his advice, but

I never checked the results of the entrance examination. My fixation was still with the air force, and at this time, I targeted the aeronautical engineering school of the air force. However, there seemed to be a problem here. Namely, those competing for a position were more than 300, and the positions available were 6–8! In view of these imposing odds, my parents did not attempt to dissuade me from preparing for such a competition, and actually taking the examination. Why should they? It was, clearly, a hopeless effort! For about a year, I exhaustively studied math and science. When the examination time arrived, I was an enthusiastic and determined participant. In military schools, the exams were taken serially, and only the successful participants in one subject were allowed to continue with the next subject. In this manner, I reached the last examination in chemistry, which was taken by less than a couple dozen people. I later learned that I had earned the top overall score on the examination.

And it was here when the drama began. Succeeding in the examinations was extremely tough, but that was only part of the admissions routine. The candidates for all military schools, and, in particular, for such an elite institution as the air force aeronautical engineering school, also had to be certified on their political beliefs, on the basis of several degrees of family connections. It was here where the sorry political past of my father entered the picture. As became known later, the disqualifying certificate arrived at the examination committee's headquarters right after the examination papers in chemistry were corrected. It was the duty of the committee to flunk me, no explanations provided. The chairman of the committee, an air force colonel-engineer, took it upon himself not to post the results. My uncle Hercules, who was highly regarded and had many influential acquaintances, tried vigorously to obtain an exception for me, unfortunately, to no avail. He was given to understand that there would be dire political consequences if the effort to gain my admission to the elite school of aeronautical engineering of the air force succeeded. So, I was officially certified to be a. . .communist (!), and I was abruptly denied the realization of my dream.

Debasis and Frank: Disappointing and demoralizing! What happened next?

George: For more than a year, my odyssey in search of my Ithaca went on, without much satisfaction. After quite some time, disappointed and shaken, I decided to visit the department of mathematics of the University of Athens, just to inquire about the previous year's entrance examination. I was told that I was successful, but since I did not enroll, I lost the right of enrollment. Fortunately, there were a couple of openings in the following year's class, and one was allocated to me. Apparently, my manifest destiny was to become a mathematician rather than an air force officer-engineer! I graduated from the University of Athens in four years with high honors. During the last two years, I also served as a teaching assistant to professor D. A. Kappos, who was a student of Constantine Carathéodory and held the chair of mathematical analysis. I was fortunate to take many of my courses from him. While my studies in mathematics were quite broad, I had not yet been introduced to probability or statistics.

CHOOSING STATISTICS—THE UNIVERSITY OF CALIFORNIA, BERKELEY YEARS

Debasis and Frank: That's a fascinating story, George. It's interesting how sometimes bad things seem to happen for a reason. Certainly your ultimate career path is a good example. It's intriguing that you decided to pursue graduate work in a field that you had yet to be formally exposed to. How did that come about?

George: It was my determination to pursue graduate work abroad. The decision to go for statistics—despite the lack of any relevant background—was due to a liking I took in probability (by attending an occasional seminar, and also by studying on my own), but primarily it was due to the advice of Professor Kappos. His own expertise was in measure theory and probability in abstract structures. The absence of statistics from the curriculum was an additional reason. Since studying abroad was well beyond my family's financial means, another financial source would have to be located. Fortunately, the Greek government did provide some relevant fellowships, based on a series of written examinations and service in the armed forces. So, I was inducted into the army, where I served for two years as a private (an unusually low rank for a young man with my background), largely because I was still plagued by my unfortunate experience with the air force. But my low rank army service did me some good, as I spent almost the entire period close to home, and I had the possibility to pursue my study of the English language. Soon after my discharge from the army, I participated in an examination for the selection of fellows to study applied mathematics (which included probability and statistics) abroad. Professor Kappos insisted that, once the decision to study statistics was made, the place to go would be the University of California in Berkeley.

FIG. 2. *A (nonabelian!) group of the mathematics graduating class at the University of Athens, fall* 1956. (*George Roussas, in the middle, kneeling*).

Debasis and Frank: You began your graduate studies in the states in 1960. What were your first impressions of Berkeley?

George: I traveled from Athens to Berkeley by way of London and New York. My first impression of New York was awful, but California and, in particular, Berkeley, was another matter. The climate is about the same as that of southern Greece, the city of Berkeley is charming, and the university campus is of exceptional beauty. Nothing, of course, is needed to be said about the academic standing of the entire university, and of the department of statistics, in particular. David Blackwell was the chair of the department, and Lucien Le Cam was the graduate advisor.

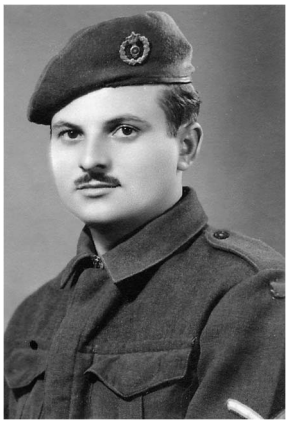

FIG. 3. *George Roussas when serving his military service in the Greek Army*, 1957–1959.

Debasis and Frank: Tell us a bit about your graduate studies and, in particular, about the faculty members who had a strong impact on you.

George: The first graduate level course in probability and statistics I took from Thomas Ferguson, during the summer session. Early on, I took courses in measure theory, functional analysis and topology from the department of mathematics. The hypotheses testing and point estimation courses I took from E. L. Lehmann, and decision theory form Le Cam. I took courses in measure-theoretic probability, second order processes and sufficiency form Edward Barankin. I took a one-year course in probability from Loève, and a course in Markov chains from David Freedman. From Blackwell, I took a course on coding theory and another one on programming. Also, I took a course in Markov chains from K. L. Chung during a summer, and another course in empirical Bayes methods from Herbert Robbins when he was a visitor in Berkeley. It was almost a criminal omission that I did not take the ANOVA course from Henry Scheffé, and at least one of the courses taught by Jerzy Neyman. I did, however, study the Scheffé book thoroughly and, later, taught out of it.

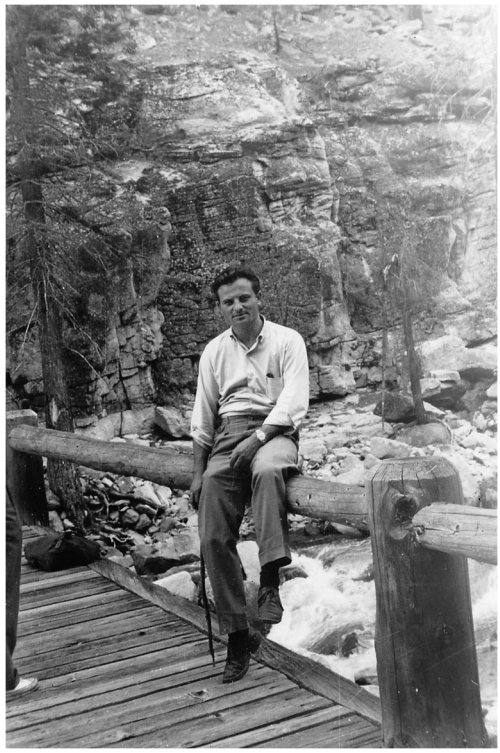

FIG. 4. *George Roussas in the Yosemite National Park in his first summer in the UC Berkeley*, 1960.

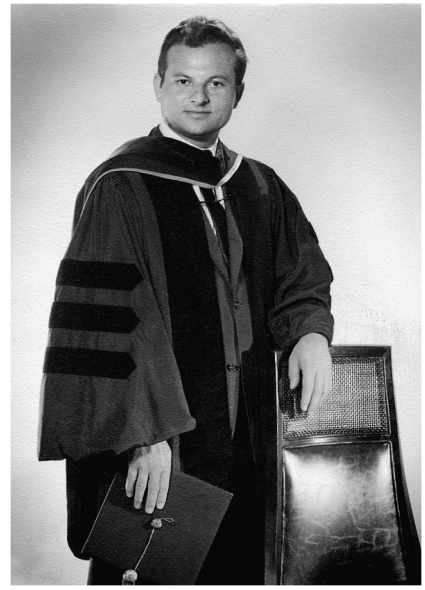

FIG. 5. *George Roussas upon his graduation from the UC Berkeley*, 1964.

The faculty of the department of statistics in the UC Berkeley was an almost. . .suffocating constellation of stars! I had immense respect and admiration for each and every faculty of the department. Neyman—founder of the statistical laboratory and of the department of statistics—was an imposing figure in the department. He was very kind to me, and more than once mentioned to me his experience during a brief visit in Greece as an international observer. Barankin, in addition to being an outstanding mathematical statistician and probabilist, was also well versed in philosophy and in the classics. It was not unusual for him and me to talk about Plato, Aristotle and Sophocles. I learned asymptotic theory primarily from Le Cam. His seminal work on contiguity of sequences of probability measure and its statistical implications were the key for my entrance into the field of large sample theory. As is well known in the statistical community, Le Cam was deeply knowledgeable in a broad area of mathematical sciences, and exceedingly helpful to all those who sought his advise. Le Cam's vast knowledge often created communication problems between himself and a student. However, those who persisted would manage eventually to chip away bits of his wisdom.

David Blackwell was my great discovery at UC Berkeley. It is not a secret that UC Berkeley was the repository of great scientists. So, in this context, it would not come as a surprise that Blackwell belongs in that exclusive club. What is rather rare, however, is for a great scientist to be endowed with exceptional human qualities. That is, indeed, the case, which puts Blackwell in a class of his own. He is endowed with a refined, friendly and appealing personality, and he treats people in ways that build their self confidence and inspires relationships based on mutual respect. He's been a wonderful role model for me and many others.

As one would expect, the time in the UC Berkeley was academically challenging, but overall pleasant, and certainly extremely constructive; it provided unmatched academic training.

THE UNIVERSITY OF WISCONSIN, MADISON, EXPERIENCE

Debasis and Frank: After taking a temporary position in 1964 (while considering a possible return to Greece), you joined the Statistics faculty at the University of Wisconsin, Madison. George Box was then in the early stages of organizing the statistics department there. What were the highlights of your time in Madison?

George: In the fall of 1965, I was invited to interview at UW Madison. At the end of my interview, Irwin Guttman, then the acting chair of Statistics there, made me an unofficial offer, and I accepted it on the spot. I had already fallen in love with Madison, both

FIG. 6. *George Roussas' family in Marmara, in the summer of* 1966. *From left to right*: *George, sister Demetra, mother, sister Stella, father, sister Aggeliki* (*kneeling*), *and nephew John*.

because of its physical beauty and because of the superb academic climate there. I did not allow myself the time for the usual bargaining to improve upon the rather low academic salaries offered by the UW at the time!

So, I joined the department of statistics of the UW Madison, in the fall of 1966, as an assistant professor. At the same time, another four assistant professors were hired: Asit Basu, Richard A. Johnson, Gouri Bhattacharyya and James Bondar. Existing faculty members, in addition to Box and Guttman, were Norman Draper, John Gurland, Bernard Harris, William Hunter, Jerome Klotz, George Tiao, Donald Watts and Sam Wu, as I recall.

George Box had created in the department an academically demanding and rigorous climate, but at the same time, comfortable, nonoppressive, and enjoyable. Those who did their work well were recognized and rewarded. I was promoted to associate professor (with tenure) in 1968 and to full professor in 1972. As all other faculty members, I used to teach two courses per semester, one graduate-level course and one undergraduate course. The undergraduate course was alternated between an upper division probability and mathematical statistics course, and a pre-calculus statistics course. The latter choice was often made, because that was where the interesting students were! We recruited some very good ones into the statistics major!

Frank: I understand that at least one of them was recruited into marriage! (Laughs.)

George: You are right about that! It was in one of my pre-calculus statistics classes that I met Mary Louise Stewart, who was destined to become my wife. She was a Ph.D. candidate in food management with a minor in statistics. This was in the fall of 1969. During the spring semester of 1970, I was on sabbatical leave, which I spent in the famous mathematics institute of the University of Aarhus in Denmark as a guest of Barndorff-Nielsen. It was also there that I wrote the draft of my book on contiguity and where I met the great K. Itō and attended his ergodic theory seminar.

Sometime early in the fall of 1970, after my return to Madison, I contacted Mary, and she responded positively. We started dating regularly, and were engaged in the summer of 1971. I took Mary to Greece to meet my parents, sisters and close relatives in the summer of 1971, and upon our return to Madison, we had our civil wedding ceremony on September 11, 1971.

THE PENDING ISSUE OF RETURNING TO GREECE—TRAVELING BETWEEN MADISON AND PATRAS

Debasis and Frank: Things went quite wonderfully for you in Madison, both personally and professionally. We know, however, that you were faced with a

FIG. 7. *A faculty meeting in the Department of Statistics of the University of Wisconsin, Madison, sometime between* 1968 *and* 1970. *From left to right* (*part of the faculty only*): *Jerome Klotz, Grace Wahba, George Roussas, John Gurland and John Van Ryzin.*

difficult choice in the early 1970s—whether to remain at Madison or return to your native Greece. What were the main issues you were dealing with at that time?

George: Madison was great for us in so many ways. However, there was a recurring issue that caused quite a bit of discomfort. I began to receive repeated notifications from the Greek government about my contractual "obligation" to return to Greece and my need to discharge this obligation. At the time, Greece was under military rule, and that made my return there problematic on many counts. From a purely practical viewpoint, I was highly content with my life and career, and

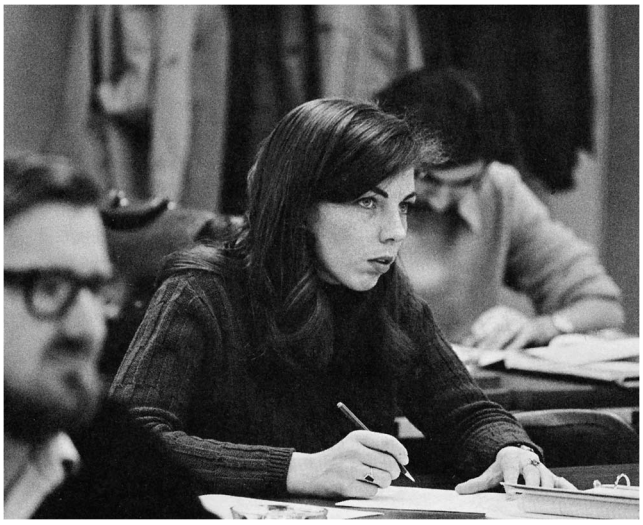

FIG. 8. *Mary Roussas in George Box's class on Time Series Analysis as a graduate student at the UW Madison when she was still Mary Stewart*, 1970.

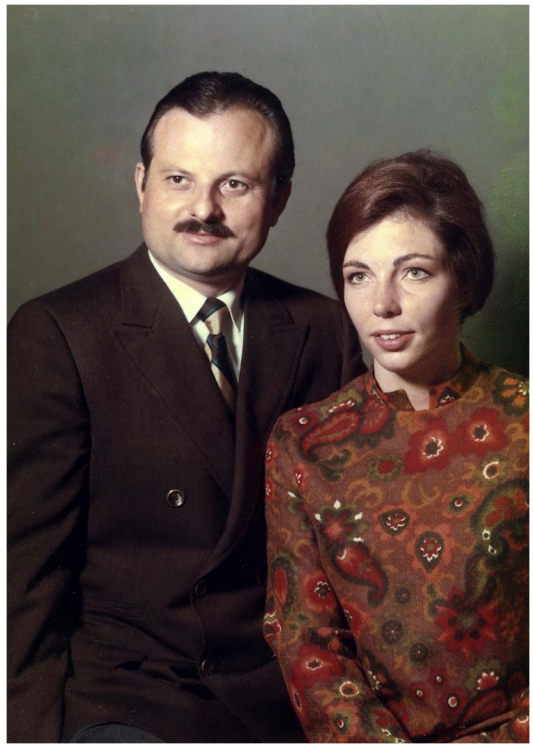

FIG. 9. *George and Mary Roussas newly married in Madison, Wisconsin*, 1971.

I had no desire to leave Madison. Further, Mary and I were already planning to start a family. Philosophically, I was strongly opposed to serving under a military regime. Finally, a return to Greece seemed unsafe to me, as I had been active in opposing the military regime. On the other hand, I had no wish of being deprived of my Greek citizenship, as was being threatened. Incidentally, I became an American citizen on May 28, 1971, and ever since, I have been grateful to the American people for the privilege of citizenship bestowed upon me.

Debasis and Frank: So, how did you resolve this vexing conflict?

George: I decided to respond to demands made with a proposal that seemed like it had virtually no chance of being accepted. I indicated that I could consider a return to Greece only if I was offered an academic position there comparable to the one I was holding in the States. Since there were quite a limited number of professorships in Greek universities at that time, and occupying a full professorship was only for the well connected, the possibility seemed, to say the least, remote. So, on this account, I felt fairly safe. Unfortunately (for me), the government came up with an open chair in Applied Mathematics (which included probability, statistics, numerical analysis and a few other subject matters) in the new and promising technologically oriented University of Patras (UP) (situated about 150 miles west of Athens), and insisted that I submit a candidacy. Still feeling safe for the reasons I cited above, I submitted an application, and lo and behold, I was elected (to a full professorship). However, the Minister of Education refused to ratify the election and ordered for the chair to be declared open again. At this time, electors (all full professors of the School of Physical and Mathematical Sciences) pleaded with me not to object to the resubmission of an application on my behalf. The process of election commenced anew, and I was elected again! This time, the Ministry of Education kept the outcome of the election in its drawers—neither rejecting nor ratifying it—for a few months, until a new Minister, a civilian, came in to replace the previous person, who was a military officer. This fellow was a chemical engineer with a Ph.D. degree from McGill University, who had worked for the Shell Oil Company in the States over many years. As soon as he was informed about the long pending ratification of my election, he approved the election immediately. That was the right thing for him to do, but it did not serve my purposes well. I was strongly urged to go to Athens to take the oath of the office, and perhaps be given leave of absence for a limited period of time. The compromise reached was to take the oath of office in the Consulate General of Greece in Chicago, and report for duty in early 1972.

Under these circumstances, Mary selflessly abandoned her studies temporarily (she had already taken her Master's degree, and was well on her way toward fulfilling all requirements for the Ph.D. degree), took a crash course in the Greek language, and started preparing herself for the forthcoming adventure. The colleagues in the department attempted to dissuade me from going to Greece, and insisted that I retain my appointment at Madison while taking a leave of absence of indeterminate duration. I have always appreciated this gracious gesture.

Debasis and Frank: So, this is when your triumphant, if somewhat reluctant, return to Greece began.

George: In a manner of speaking, yes. In February 1972, Mary and I departed for Patras. Now, the city of Patras and the university campus are built in a beautiful location, on slopes overlooking a bay, with the western part of Greece opposite it. However, being acclimated in a new community (and, for Mary, a foreign community at that) did pose considerable problems. In the university itself, I was received well by some, and not favorably by others. In dealing with the authorities, both in Patras and Athens, my strong point was that I had a safe escape route and, therefore, I had no problems in behaving in my natural way. I started teaching immediately courses in probability and statistics, organizing the Laboratory of Applied Mathematics, recruiting TA's and personnel for the lab, mentoring students with an interest in probability and statistics, attending hours-long and stormy faculty meetings, etc. Mary made a valiant effort to adjust to the local conditions, and tried hard to improve her Greek vocabulary. I am happy to say, though, that she was treated exceptionally nicely by all involved.

In the fall of 1972, we returned to Madison, and in the winter back to Patras. In the fall of 1973, we returned again to Madison. Mary also gave birth to our first son, Gregory, that October 18. Unfortunately, soon thereafter, I had a rather serious operation (removal of slip discs) in the University Hospital, and I could offer little to the department at that time. By the end of the year, we returned to Patras, where I completed my recuperation.

Debasis and Frank: Traveling between the two places must have been quite cumbersome!

George: Yes, the moving back-and-forth between Madison and Patras eventually necessitated for us to essentially retain two households. It was financially challenging and physically tiring. At the beginning, it was Mary and me (and Mary's three cats from her student days!), and now it was Mary, me and Gregory (in addition to the three cats!). It was clear that a decision was due soon as to where we were to affix our affiliation. At that time, everything pointed toward Madison, as my academic experience in Patras had been a disappointment to me. In addition to all my painful efforts to organize and staff a new unit, I repeatedly encountered what I considered to be harassment from the Minister of Education (who seemed intent on imposing political considerations into university affairs). In time, we were able to establish a tentative truce, allowing me to proceed with academic matters in ways that American academics consider natural and perhaps sometimes take for granted.

It was about this time that a decision about returning to Madison permanently was due, when all of a sudden the military regime collapsed (in July 1974), and a civilian government took over. The people, by and large, were elated with the change. A military regime is not a normal and natural regime for free people, in particular, for the country where the concept of democracy was invented and first practiced. Nevertheless, it appears that every regime has its excesses. Even the new civilian regime was eventually credited with its share of excesses, in particular, in the academic world. In any case, despite some shortcomings, the new civilian regime was responsible for establishing a semblance of normalcy in Greece and for opening up some new horizons. This promising outlook led me to decide to remain in Greece and to resign my appointment at the University of Wisconsin, Madison. I did this in the fall of 1976, thus culminating four and a half years of a joint appointment between the two institutions. It also, by no means painlessly, terminated a ten-year association with the great university and beautiful city in which I had met the love of my life, flourished personally and professionally, and spent the most enjoyable years of my academic career.

THE EXPERIENCE IN GREEK UNIVERSITIES

Debasis and Frank: The next chapter in your professional life was spent as a faculty member and administrator within the Greek university system. Tell us about those years.

George: Yes, I was now fully identified with the University of Patras. I felt that it was incumbent upon me to do all I could for the benefit of the institution, while also looking after my own scientific survival. I had worked hard seeking out the best available candidates (of Greek descent, as required) whenever a faculty position became available. I expanded this effort to the entire spectra of biological, natural and physical sciences. These kinds of activities were not universally appreciated, but I was nonetheless narrowly elected as the Dean of the School of Physical and Mathematical Sciences (by the full professors of the school). Around this same time, Mary became pregnant with our second son, John. He was born in Bloomington, Indiana, on August 10, 1977, while I was spending the summer as a research professor at Indiana University.

Frank: Is that when you were offered a starring role in the bicycling classic film "Breaking Away"?

George: No, that came later! (Laughs.) This time, I just went to visit and work with Madan Puri, an old friend of mine since our UC Berkeley days, and my former student from Greece, Michael Akritas, now an outstanding senior statistician, as we all know.

Debasis and Frank: Following this leave, you returned to Patras to take on the deanship with renewed energy?

George: Exactly! I did not feel bound by academic traditions that didn't seem to work. My main guides were common sense and my experience with US universities. One of my early "accomplishments" was to reform the manner in which faculty meetings were run. Regular school-wide faculty meetings were always held in a large room with the faculty seated, according to academic seniority, around a huge oval table. Meetings were seen as both business and social affairs. The agenda was typically unrealistically long, so that meetings dragged on and on for hours, often without any truly useful work being done. I introduced a new system in which the agenda was prioritized, placing first the items on which faculty input was essential. I made a strong effort to exclude items which were politically driven, and to set aside strictly administrative issues which could be handled without taking up the faculty's time. While exerting control of the agenda, I resolved to be firm but also fair and impartial.

Debasis and Frank: By the way, reconnecting with your family during this period must have been a special pleasure.

George: Most certainly so! My parents especially enjoyed seeing our children on a regular basis.

Debasis and Frank: How was your approach to the deanship taken by the faculty in Patras?

FIG. 10. *George Roussas' parents in the late* 1970*'s.*

George: While my methods were considered new and different, most of my colleagues were pleased with my performance and some of them urged me to stand for election for the office of the chancellor of the university. In those days, the chancellor was elected by the totality of the full professors of the university; this was the old continental European system. I was elected by a comfortable margin. I served as a chancellor-elect for a year, and took over the chancellorship the year after.

Debasis and Frank: An important political change began in Greece in 1982 when A. Papandreou formed a new government. What did you know about him at the time?

George: Papandreou came from a political family (his father was the leader of a political party, and had served both as a minister and prime minister in the past). He left Greece right after high school, studied economics in Harvard, and served on the faculty of several US universities, most notably UC Berkeley, where he was also the chair of the department of economics for some time. It was there where I came to know him. He was a noted economist, clearly a political leader with highly respected credentials within the European Union (EU). The new government was welcomed by a substantial majority of people as a turning point in Greek politics, and justifiably so. A modern and knowledgeable economist at the helm of the government would surely put the vast amounts of resources flowing form the EU to good use, developing and modernizing the Greek economy. It was generally expected that a man of his background would also revitalize Greek education at all levels, helping to recruit a substantial number of Greek academics from home and abroad, thereby infusing Greek universities with new blood and highly qualified scientists.

Debasis and Frank: Around this same time, you yourself made a change within the Greek University system. Tell us about that.

George: Actually, this was not a change of my base, it was the undertaking of temporary additional duties. Undersecretary of Education George Lianis offered me the position of the vice president for academic affairs of the then new University of Crete. The appointment would allow me to remain in Patras as chancellor, but it would require weekly meetings, in either Athens or Crete. My primary new responsibility was to oversee and chair the elections of faculty members in the Departments of Mathematics, Physics, Chemistry, Biology and Computer Science. I felt I could accommodate these duties in my portfolio without disturbing my family, now grown to include Mary and three sons, with the addition of George-Alexander on December 12, 1980. I launched into my new responsibilities with gusto, and before long, the University of Crete was staffed by scientists of considerable international reputation. There were some challenges to be faced, but I'm saving the details for a mystery novel I will compose in the near future! (Laughs.)

Something about the Greek system of administration might interest you, as things are quite different in the States. Neither the deanship nor the chancellorship I held provided any additional payment or stipend beyond the professorial salary. As a chancellor, I had at my disposal a car and chauffeur for university business around the clock, and that was all. For my service in the University of Crete, I was simply paid travel expenses and a nominal per diem. In Greece, academic administration is viewed as within the normal scope of a professor's activities.

Debasis and Frank: What seemed like a very promising beginning at Patras and at Crete was, unfortunately, destined to run into insurmountable obstacles. What were the root causes of the change in the academic climate in Greece?

George: Perhaps not unexpectedly, politics trumps most other forces in our society. While the conditions were ideal to usher Greece into a new era of achievement and prosperity, it soon became clear that this was not going to happen. It became apparent that Papandreou had no intention of being the architect of such

FIG. 11. *George Roussas delivering a speech at the University of Patras at his inauguration as the Chancellor of the university*, 1982.

FIG. 12. *At the reception right after George Roussas' speech. From left to right*: *Mary Roussas*, *George Roussas' mother and George Roussas*. (*His father had passed away*).

a feat. What he did instead was to continue preaching and practicing his pre-election populism, even after he was in power. He squandered the national wealth and the resources provided by the EU for partisan purposes and other unworthy causes; consequential productive investing was nowhere to be seen.

The education system of the country, and, in particular, the higher education, was in dire need of reorganization. Papandreou's "reorganization" essentially abolished the administrative structure in the primary and secondary schools, and virtually dismantled the universities. The existing small number of university professors was marginalized with the flooding of the ranks by new appointees, and the universities were turned into unlikely arenas of competition of the political parties. By political collaboration of teachers and students, the resulting majority was then in a position to elect the university authorities at all levels (departmental chairs, deans, vice chancellors and chancellors). Needless to say, the result was predictable chaos and a dramatic lowering of academic standards. It has been more than a quarter of a century since these measures were put into effect, and the results are everywhere to be seen. Furthermore, there is no hope for deliverance form this evil anytime soon; the genie is out of the bottle, and it is not easy (or even possible) to confine it in there again!

THE TURNING POINT—RETURNING TO THE STATES

Debasis and Frank: That is indeed a tragedy. It's clear that you harbor both sadness and anger about it; sadness for your native land and anger about the way things were changed for the worse. As you completed your term as chancellor of the University of Patras, you could see the handwriting on the wall. That's about the time that you took a sabbatical leave at the University of California, Davis, is it not?

George: That's exactly what happened. Although our next move was not yet clear, Mary and I decided that a year of sabbatical leave, spent outside the country, would be a welcome and much needed change, and help us work out a plan for the future. That future could have been a suitable position in the EU. Nevertheless, we decided to spend the year in the States, and that is how I found myself at the UC Davis in the capacity of visiting professor, starting in the summer of 1984. P. K. Bhattacharya's work on nonparametric statistics was one of the reasons that I was drawn to UC Davis. Statistics at UC Davis at that time was organized as an Intercollege Division of Statistics headed by an associate dean. Professor Robert Shumway was the acting associate dean, and he was prompt and most accommodating in his response to my request about visiting the UC Davis for the year.

As you well remember, Frank, the UC Davis statistics unit was formed in 1979 in the usual manner,

FIG. 13. *The Roussas boys. From right to left*: *Gregory, John and George-Alexander, in Greece*, 1983.

that is to say, by grouping together statisticians affiliated with other departments, such as mathematics, epidemiology, etc. It was a solid group of fair size, and its first associate dean was Julius Blum, a noted probabilist. Other members of the unit in the early 1980's were P. K. Bhattacharya, Alan Fenech, Wesley Johnson, Y. P. (Ed) Mack, Norman Matloff, Frank Samaniego, Robert Shumway, Jessica Utts, Alvin Wiggins and Neil Willits. Jane-Ling Wang came aboard the same year with me in 1984. The idea behind this mode of organization of the unit, that is, as an Intercollege division of statistics rather than a department of statistics, was to gather together all statistical activities under one roof, rather than having them spread over the campus. In the UC Davis there is also a rather novel idea at work, that of a Graduate Group, which brings together faculty with common research interests serving in various units on campus. Actually, it is the graduate group which controls the graduate curriculum and supervises graduate degrees. So, there also was a graduate group in statistics, and the associate dean of the intercollege division of statistics was, ex officio, the chair of the graduate group. Blum passed away unexpectedly in his third year as associate dean of the unit, and Professors Bhattacharya and Shumway reluctantly served in succession in an acting capacity, while an active search was launched for a permanent appointee as associate dean. As I recall, Frank, at that time, you were serving in a campuswide administrative capacity as the Assistant Vice Chancellor for Academic Affairs.

THE UNIVERSITY OF CALIFORNIA, DAVIS YEARS

Frank: It seems that the stars were aligned that year, as Davis was searching for a new head of its Statistics unit and you were seriously looking for a new position and new challenges. I clearly recall that you were the unanimous choice of the Statistics faculty in our search in 1984–1985. You joined the Intercollege Division of Statistics in July, 1985, as Professor, Associate Dean and Chair of the broadly based Graduate Group in Statistics. You served as the head of our unit for 14 years without taking even one quarter of sabbatical leave. Your service to the unit was both visionary and very effective. From your perspective, what were the highlights of this period?

George: Thank you, Frank, for your generous description of those years. Upon shouldering the leadership responsibilities in 1985, the faculty, in conjunction with the university administration, designed a strategic plan to expand the unit up to the point of achieving a critical mass, and turn it from a solid unit to a unit of national and international standing. We proceeded with the implementation of the plan by hiring a number of bright new faculty members, including Prabir Burman, Chris Drake, Hans-Georg Mueller, Wolfgang Polonik and Chih-Ling Tsai, and by making efforts to attract established superior level statisticians, such as Rudolph Beran from the UC Berkeley and Peter Hall from Australia. These latter two recruitments became realities soon after my stepping down as Associate Dean. At the same time, we laid the foundation for a program in biostatistics, which subsequently developed into a program of national repute. A decisive role in founding and developing the biostatistics program was played by Hans Mueller, who was by training a statistician, a biostatistician and a medical doctor. Within a few years, it became apparent, and certifiably so, that our objectives and goals were well on their way of being realized.

FIG. 14. *George Roussas giving a seminar after his appointment as Professor, Associate Dean and Chair of the Graduate Group in Statistics at the UC Davis*, 1985.

I'm sure you recall that, in an evaluation study of 300 statistical research institutions around the world—carried out by the National Sciences and Engineering Council of Canada (NSERC) for the period 1986–1990—statistics in the UC Davis was ranked 14th

(top 4.7%) worldwide, and 11th within the United States (top 3%). This ranking was reaffirmed and even improved in a follow-up study, carried out by Christian Genest and Mireille Guay (*The Canadian Journal of Statistics*, Vol. 30, No. 2, 2002, pages 392–442). In this study, the authors employed several criteria of evaluating the same as above institutions. On the basis of one of these criteria—essentially, published research papers per capita in the "top 25" research journals in the field—statistics at the UC Davis was ranked 4th (top 2%) among 202 institutions studied. And these hard facts are beyond and above the general reputation of UC Davis statistics faculty as excellent researchers, teachers and contributors to the profession. This really is an achievement for which our faculty as a whole deserves credit, and I am extremely proud of the hard-working yet congenial group that constitute the statistics faculty at Davis. Naturally, I am proud as well of the role I had the opportunity to play in helping to shape this group.

Frank: George, would you like to mention at this point some events and turning points we faced as a statistics unit?

George: I surely would. Heading the statistics unit at Davis was not without its challenges, especially during periods in which the California economy was weak. In the early 1990's, for example, during one of the more severe financial crises of the State (with inevitable repercussions for UC), the dean in charge of day-to-day oversight of the Intercollege Division of Statistics recommended the merger of statistics and mathematics as a cost saving device. Not only had the dean (a fine humanist, but largely unschooled quantitatively) forgotten that that was where we had started—separating from mathematics in order to realize the breadth and potential that statistics rarely can achieve within a mathematics department—but he had failed to reflect on both the unit's stature and its many applied contributions (including consultation across the campus through our Statistical Laboratory, collaborations with applied scientists on campus and a broad spectrum of courses taught as a service to students in other majors). The faculty went into overdrive to come up with ideas and strong arguments against the proposed merger. Also, for a period of about three months, I lobbied heavily a number of higher-level administrators and other influential people who were supportive of our continued independence. As a result of our collective efforts, I submitted a detailed and impassioned letter in defense of our status as a free-standing unit. In

FIG. 14.A. *In front of Kerr Hall at UC-Davis, in* 1986. *From left to right*: *Keh-Shin Lii, UC-Riverside*; *Y. P.* (*Ed*) *Mack, UC-Davis, Murray Rosenblatt, UC-San Diego*; *Peter Hall, Australian National University*; *and George Roussas*.

FIG. 14.B. *In the island of Spetses, Greece, during a NATO Advanced Study Institute in* 1990. *From left to right*: *Y. P. Mack, UC-Davis*; *Paul Deheuvels, L.S.T.A., Universite' Paris VI, France*; *and George Roussas*.

the end, the administration conceded that the merger of statistics and mathematics would be a serious strategic mistake. We held our status as an Intercollege unit for 21 years. While we cherished our considerable independence as a mini-college on campus, as well as the access it gave us to various forms of support from all other schools and colleges, we also realized that we were not big enough to withstand ill-conceived attacks. It was this kind of reasoning that led us to seek and achieve the (lesser but safer and, let's face it, more traditional) status of a department. This went into effect in 2000, and Jane-Ling Wang was the first chair of the department of statistics. She was succeeded by Rudolph Beran, and then by the current chair Wolfgang Polonik.

Debasis and Frank: Your friends and colleagues clearly appreciated your accomplishments and your generous service to several institutions and to the statistics profession generally. They threw quite a "party" in your honor!

George: All this was something of a surprise to me. My old friend and former collaborator Madan Puri of Indiana University organized a volume of research papers featuring work in the general areas in which my own research was focused. This project resulted in the Festschrift "Asymptotics in Statistics and Probability: Papers in Honor of George Gregory Roussas," VSP International Science Publishers, 2000. It was edited by Professor Puri, and consists of 25 papers by 48 authors from 13 countries, with a preface co-authored by Madan L. Puri and my good friend and well-known statistician Yannis Yatracos.

Subsequently, Hans Mueller and the department of statistics conceived of the idea of organizing a two-day workshop at UC Davis at which the Festschrift would be officially presented to me. The conference took place at UC Davis on May 19–20, 2001, with the participation of a select group of researchers, including a member of the French Academy of Sciences, a chancellor of a German university, the holder of a name-chair in the London School of Economics and three chairs of statistics departments.

Frank: At the time, I made note of the fact that the conference was scheduled right in the middle of the period that I was on sabbatical leave in Ireland. I chose not to take offense. (Laughs.) But seriously, George, I would have loved to have been on hand to give my hearty congratulations for a roundly successful and meaningful career. And, of course, the beat goes on.

George: It was indeed unfortunate, Frank, that you could not be with us on that occasion, but apparently there were many constraints the organizers had to abide by. I always regretted your absence from that festive event, in contrast to your ever present continuous support and counsel throughout my UC Davis years.

Debasis: Let me add, George and Frank, that I was fortunate enough to be present, and the proceedings were thoroughly enjoyable!

FIG. 15. *Faculty of the Department of Statistics at the UC Davis, Fall* 2000. *Top line*: *Alan Fenech, Wesley O. Johnson, Y. P. (Ed) Mack, Prabir Burman, Hans-Georg Mueller, Wolfgang Polonik, Rahman Azari and Juanjuan Fan. Second line*: *Richard Levin, F. J. Samaniego, J.-L. Wang, George Roussas, Christiana Drake and Jessica Utts.*

Debasis and Frank: How have you structured your professional life since leaving the administrative posts you held up to 1999?

George: Well, I continue to be an active member of the department of statistics, and a member of the graduate program in statistics and the graduate group in biostatistics, both housed in the department of statistics. I have concentrated both on a variety of research problems in the areas in which I've always been interested, and have enjoyed my teaching assignments, but I have also had the luxury of time to work on pet projects. I have written three books ["*An Introduction to Probability and Statistical Inference*" (2003), "*An Introduction to Measure-Theoretic Probability*" (2005) and "*Introduction to Probability*" (2007), all published by Academic Press]. I have already revised the *Measure-Theoretic* book, and I am in the process of revising another two books. Also, I am in the process of working collaboratively on a new book (tentative title "*Probability and Statistics for Non-majors*"). So, I've kept quite busy, both with professional projects such as these and with family, to whom we have added my daughter-in-law Casie, wife to my son John, and my delightful granddaughter Sophia Aggeliki, as well as my daughter-in-law Laura, wife of my son Gregory.

SOME MEMORIES FROM ROUSSAS' PROFESSIONAL CAREER

Debasis and Frank: What are your fondest memories over a career spanning almost 50 years?

George: In retrospect, I feel that there are many reasons that I should be grateful for my long professional life. I am certainly most grateful to all of my professors in the UC Berkeley for the truly solid training imparted in me; the full value of it did not become evident until later in my academic career. I often reminisce about my ten productive and pleasant years at the University of Wisconsin, Madison. Madison was, after all, where I met my wife, Mary Louise, and where our first son, Gregory, was born. I do not regret the ten to twelve years that I invested in seeking to contribute to higher education in Greece, although the net result was almost negligible. I feel that I gave it my best try, but, realistically, there are many other factors which influenced the final outcome.

I am certainly most grateful to UC Davis for the way I was received, and the opportunity I was given to do here what I was not allowed to do in Greece.

Genuine thanks are also due to my professional colleagues who honored me with my election as a Member of the ISI (1974), admitted me as a Fellow in the RSS (1975), and elected me as a Fellow of the IMS (1983) and the ASA (1986). Special thanks are also due to the scientific community at large for electing me a Fellow of the AAAS (2008). And last but not least, I am grateful to a select group of Greek scholars—the membership of the Academy of Athens—for electing me a Corresponding Member of the Academy of Athens in the field of Mathematical Statistics (April 17, 2008).

Debasis and Frank: And on a personal level?

George: I feel exceptionally fortunate that I have spent my adult life surrounded by a wonderful, supportive and endlessly interesting family. For my stamina and persistence, I must thank Mary, especially, both for her support and encouragement over the years but also for her sage advice. I feel singularly fortunate to have three healthy, intelligent, beautiful sons—Gregory, born in Madison in 1973, now a computer scientist, John, born in Bloomington in 1977, a practicing attorney, and George-Alexander, born in Patras in 1980, a UC Davis graduate in political science, aspiring to the legal profession. Also, we are delighted with the relatively new arrival (March 26, 2008) of our first grandchild, Sophia Aggeliki, daughter of John and Casie, also a practicing attorney and our newest daughter-in-law Laura. Many wholeheartedly felt thanks are due to my sisters for their immense moral support and consequential material support when that was most needed.

One thing we regret is that we did not have enough time to enjoy the house that we built in Patras in 1980. Its setting is truly idyllic: It lies on an acre of land full of trees, (including an olive tree grove) at the foot of a wooded hill with a mountain in the background, and faces the Patras bay.

On a personal level, it has also been painful that, by expatriating myself for most of my adult life, I was deprived of the opportunity to spend any significant amount of time with my parents, sisters and other members of the immediate family. In retrospect, I also believe that, by devoting unduly much time to my professional duties, I deprived my own family and myself of the opportunity of spending more time together. But I truly believe that each phase of our lives is a nonrecurrent event, and must be appreciated, as it comes, to the greatest extent possible.

Debasis and Frank: Since you've served in a wide variety of administrative capacities during your academic career, perhaps you'd like to share your thoughts about what it takes to do this type of work well.

George: I am pleased to do so. I believe that being a good, efficient and inspiring administrator requires an inborn talent. Beyond this, one has got to be honest, just and straightforward, and by word and deed, convince one's co-workers about that. One's commitment to these values must of course be real, but it is also important that they be clearly perceived by those with whom you deal. Furthermore, without in any remote way being dictatorial, one has got to convey the clear message that there is only one leader at a time. One should stand and defend well established principles, and not bend according to the prevailing winds. Vision is important, but it is also essential to have the ability to explain one's vision in ways that gain the needed support and engagement from others. The ability to listen is extremely important. It is essential that different sides of a controversial issue be weighed. I have never found it difficult to take a position that may be unpopular, but I never wished to do so without being convinced that I had the relevant facts in hand.

I recall when once working at my desk in the chancellor's office in the UP, I heard outside my door a rather heated discussion. Inquiring about it, I was told that it was a committee of cleaning ladies who wanted to see me and present to me a perennial unsolved issue of theirs, but the receptionist would not allow them to do so. During my entire tenure on the university campus, the rumor spread widely about this professor from the States interacting with people at all levels. However, for the receptionist it was inconceivable that a cleaning lady would ask to see the chancellor. On this particular occasion, I invited the committee into my office, listened to their concerns and was able to resolve them to their satisfaction that very day.

There were several incidents with highly politicized student and TA groups, which could have developed to the point of explosion, but fortunately, they were decisively contained to the point of dissipation. It is probably best that I not elaborate on them further.

BRIEF DESCRIPTION OF MAIN RESEARCH INTERESTS

Debasis and Frank: We haven't spent much time on the areas of Statistics and Probability that you have concentrated on during your career. This conversation would be quite incomplete without your giving us a brief tour.

George: Thanks for asking! As you know—and especially, you, Debasis—my early work is based on Le Cam's concept of contiguity and Local Asymptotic Normality (LAN). Roughly speaking, LAN allows for a more or less arbitrary parametric family of probability measures to be replaced (asymptotically) in the neighborhood of each parameter point by an exponential family of probability measures. Contiguity ensures the establishment of asymptotic normality under moving parameter points, when such normality under a fixed parameter point is already known. This theory has important statistical implications. Roughly speaking, whatever can be done for exponential families can also be done, in the limit, for the given family of probability

FIG. 16. *One aspect of the Roussas' house close to the university campus in Patras.*

measures. Those results may then be transferred to the original family, for which they are going to hold at the asymptotic level. Such results were developed, originally, for discrete time-parameter Markov processes.

Nonparametric estimation in special cases of Markov chains has been around for a long time. However, nonparametric estimation in a general setting of discrete time-parameter Markov processes was largely an open area for investigation in the late 1960's. It was exciting to be in on the ground floor in this problem area. I published a series of papers, beginning in 1969, which established some foundational results and opened the door to further research in the area.

In Markov processes, the future depends on the past and present only through the present. One way of incorporating the entire past, when that matters is by in-

FIG. 17. *At the baptism of the Roussas' first grandchild, Sophia Aggeliki, in Athens, September* 2008. *The parents John and Casie Roussas with the baby, and George and Mary Roussas.*

FIG. 18. *George and Mary Roussas with Sophia Aggeliki, right after her baptism.*

troducing various modes of dependence conditions, referred to as mixing. The basic idea in mixing processes is that the past and the future are approximately independent, if they are sufficiently far apart. In a way, it is the natural evolution beyond Markovian dependence. I was introduced into this area by my colleague Y. P. Mack (a student of Murray Rosenblatt) in 1984, the first year of my visit in the UC Davis. From a probabilistic viewpoint, there was a huge amount of work already done, mostly by the Russian probability school (Davydov, Gorodetski, Ibrahimov, Kolmogorov, Lifshits, Rosanov, Volkonskii and others), and also by probabilists in the States (first and foremost Rosenblatt, then Bradley, Kesten, Peligrad, Philipp and others), as well as by other researchers (e.g., Földes, Iosifescu, O'Brien, Withers, Yokoyama and Yoshihara). However, there wasn't a body of work on statistical inference on such processes. These problems intrigued me, and I got some nice results. These were published in a series of papers, starting in 1987. Ever since, there has been an explosion of papers in this area, including contributions by Doukhan, Louhichi, Masry, Shao, Tran, Yu and many others.

The next area of my interest has been that of associated processes. The concept of associated random variables was introduced by Esary, Proschan and Walkup in a seminal paper, and it was extensively used in the book by Barlow and Proschan in a reliability framework. The concept of negative association was introduced by Joag-Dev. Association was also introduced and used in the context of mathematical physics by Fortuin, Kasteleyn and Ginibre.

Although I had a peripheral interest in this area due to my overall interest in modes of dependence, my interest was accentuated significantly after an extended visit to UC Davis by Frank Proschan. Again, there did not seem to have been a systematic approach to statistical inferences in such processes, and this fact stimulated my interest in such a kind of work. As a result, there has been a stream of papers between 1997 and 2001 by me, my students and other collaborators in which a variety of such problems have been posed and solved. More importantly perhaps, this seems to have instigated the formation of a "school" in this area with much activity in China, South Korea, France and Portugal. Some of the noted contributors in association, either in probabilistic developments or statistical inference, have been Birkel, Bulinski, Cai, Doukhan, Ioannides, Louhichi, Oliveira, Prakasa Rao, Shashkin, Taylor, Yoshihara and others. Special mention is deserved for a seminal paper on this subject by C. M. Newman.

In the last ten years or so, I revisited, with Debasis, the area of contiguity and LAN, and extended previous work to the so-called Locally Asymptotically Mixed Normal (LAMN) families of probability measures, so coined by Jeganathan in 1982. In this latter framework, we produced a number of papers on distribution theory with applications to statistical inference.

Finally, my current interests include conditioning, sampling from continuous time-parameter stochastic processes, and the theory and applications of copulas.

Debasis: George, I've truly enjoyed the opportunity to work with you. We've worked on a wide variety of topics, including, of course, contiguity. Your 1972 book on contiguity has become a classic! I know it's been translated into Russian and perhaps other languages. Have you given any thought to writing a new edition of the book that would include the many new results that we and others have obtained in the area?

George: The contiguity book, which was published by Cambridge University Press in 1972, was written in an attempt to obtain a deeper understanding of the concept of contiguity and its statistical applications, and also to help disseminate this very important concept. Le Cam's original paper in 1960 is not particularly easy to read. Of course, he employed contiguity in his all-inclusive 1986 book ("*Asymptotic Methods in Statistical Decision Theory in Statistics*," Springer-Verlag). A much more accessible discussion of contiguity and its repercussions are presented in the 2000 monograph ("*Asymptotics in Statistics: Some Basic Concepts*," 2nd edition, Springer) by Le Cam and Yang. I was therefore somewhat surprised that the Cambridge University Press put out (in 2008) a reprint of my book in a paperback form; apparently, there still seems to be some continuing interest in that work.

And now, in order to answer directly your question, Debasis: I don't really have any plans to do what you suggested. However, should you take the initiative, I might be persuaded to join in! (Laughs.)

Incidentally, some time in the recent past, I had thought of organizing some material on associated processes and their statistical applications. This tentative plan is now aborted with the recent publication of an excellent monograph on the subject matter ("*Limit Theorems for Associated Random Fields and Related Systems*," World Scientific, 2007) by Bulinski and Shashkin.

MUSICAL INTERESTS

Debasis and Frank: We know that you have a great appreciation for classical music. How did that lifelong interest originate, and which composers are among your favorites?

George: I developed a strong liking for classical music early on, during my high school days. I'm not sure what drew me to it, other than its sheer beauty. No one in my immediate environment was particularly musically oriented. At the same time, I have also always liked good folk music, as well as some Greek popular music as exemplified by the two noted composers Hadjidakis and Theodorakis. Also, I enjoy selected pieces of popular American music and light jazz. However, my passion is classical music. In general, I am fond of the Germanic (German–Austrian) composers. I enjoy everything composed by Beethoven, and, in particular, his third, fifth, sixth and ninth symphonies, and his fifth (the emperor's) piano concerto. I love many of Mozart's compositions with special preference for some of his symphonies, piano concertos 20, 21 and 22, and his operas The Magic Flute, The Marriage of Figaro, Idomeneo and Don Giovanni. Above all, I adore his requiem. I very much like a number of symphonies by Brahms and by Haydn. Also, I enjoy many of Mendelssohn's compositions and, in particular, the Scottish and the Italian symphonies. I much enjoy the eternal Messiah by Handel, and on a lighter side, his water music and royal fireworks. Somewhat surprisingly, I never developed a true liking of Wagner's compositions, although I have immense appreciation for them.

I also greatly admire many Russian composers. Among them, Tchaikovski ranks first followed by others, such as Stravinski, Rimsky-Korsakov, Mussorgsky, Prokofiev, Rachmaninov, Sostakovich and Borodin.

I much enjoy many compositions of the Italian composer Corelli, some of Vivaldi's compositions, and the arias of operas by Rossini and Verdi. It would be an omission to leave out my liking of Filandia, and of symphonies number 2 and 4 by Sybelius, of some compositions by Chopin, Liszt's Hungarian rhapsody number 2, and also of a couple of pieces by Bizet. And of course, everybody enjoys Ravel's bolero!

Debasis and Frank: This is clearly more than a passing interest. It seems that it ranks right up there with Jack Kiefer's appreciation for mushrooms! (Laughs.)

George: Well, you did not ask me about my food preferences! What a coincidence! I will never pass up—if I can help it—a Saturday brunch of a mushroom omelet! I do have a preference for certain kinds of mushrooms, but in the end, any nonpoisonous mushrooms will do!

GENERAL OUTLOOK—CLOSING REMARKS

Debasis and Frank: On another topic close to your heart, what are the main tenets of your political outlook?

George: At least in the recent past and currently, the usual terms employed to characterize political ideology are those of being "liberal" or "conservative." However, these terms are quite tentative, and have had different connotations in different periods of time. They

are interpreted differently by different people. I like to think of myself as not really fitting the modern interpretations of either camp. My basic beliefs are that one should be interested in preserving the accumulated wisdom of our collective society and in respecting the greatest intellectual achievements of the human species over the millennia. If this is this "conservatism," so be it! At the same time, it seems to me essential that one keeps an open mind and a positive disposition toward new ideas. That is "liberalism" in my book. However, before a new idea of any importance is adopted, it must be deeply contemplated and should be vigorously debated and tested. The novelty of an idea in no way guarantees its worthiness and its usefulness to society. The unquestioning adoption of "progressive" ideas, just because they are novel, may be truly deleterious for the well being of a society; that is ill-conceived license for perhaps emotional but certainly not rational behavior, having nothing to do with liberalism. At the same time, I believe that it is a mistake to resist change and adhere to the status quo, simply because it's what we know and are comfortable with; that is simply reactionary. When I find myself needing to take a position on a political or social question, I try to combine what I know or can learn about the alternatives under consideration and form my opinion based on both experience and newly found information. In short, I believe that we should respect existing social structures, but we should not do so unquestionably. I have never been a "party-line" type of citizen, and I tend to vote for those candidates and propositions that seem to me to stand the best chance of solving real problems and of generally enhancing the quality of our lives and of the times we live in.

Debasis and Frank: This topic seems to naturally segue into your general philosophy of life. How would you summarize that?

George: I would say that the most important thing is to live a "worthy" life, based on ethical principles, respecting valued traditions, yet trying to leave things better than you found them. Trying to make some meaningful contributions to society is important, as is the avoidance of excesses that distract one from one's more noble goals and aspirations. I believe that a commitment to "excellence," in a generalized sense, is also very important. This applies to one's chosen profession, that is, to the way one does one's work, and also

FIG. 19. *Debasis Bhattacharya and Frank Samaniego interviewing George Roussas* (*in the middle*) *in his office in the Department of Statistics at the University of California*, *Davis*, *on May* 15, 2009.

to one's personal affairs. In both of these areas, integrity and respect for others, and for society's needs, should always be prime considerations. Mary and I have striven to raise our sons to have a sincere appreciation for these same principles.

Debasis and Frank: What advice would you give to young people just beginning their careers as academicians?

George: Aim high and then work hard, with energy, imagination and persistence, to achieve your goals. Strive to live a worthy life. Determine what your main strengths are, and use them to try to make a difference, both in your professional activities and in your personal life. Take pride in your best achievements! At the same time, accept responsibility for whatever failures you encounter and, most importantly, learn from them.

Debasis and Frank: George, this conversation has been a distinct pleasure. You've had an extraordinary career, with consistently strong contributions through your research, your teaching, the highly respected books and monographs you have written and your many achievements in administrative capacities. It's been most interesting to hear about your personal trajectory. You didn't set out with this trajectory in mind, but we feel very fortunate that it led you to Davis. We have all benefited from the leadership and collegiality that has characterized your 25 years here. Thanks for taking the time to talk with us about your life and career.

George: The pleasure has been all mine. I'd like to express my deep appreciation to both of you, Frank and Debasis, for this precious opportunity. Years from now, perhaps my children's children will read this and be surprised that "old pappou" had a pretty interesting life, and one that was blessed in many ways.

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