ALEXANDER HAMILTON LEIGHTON

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ALEXANDER HAMILTON LEIGHTON passed away 11 August 2007 shortly after his ninety-ninth birthday. During his long life, he was dedicated to the written word as a way of communicating not only the results of research but also the products of thought and interpretation. At the age of eighteen, he published his first scientific paper based on his observation of porcupines (1). He authored, co-authored, or edited fourteen books, including a novel (2). He published a long list of journal articles, two of which were posthumous (3, 4).

He was a man of science and letters who had a profound appreciation of nature and of human beings in all their biological, personal, and cultural expressions. He was trained in biology as an undergraduate, then in neurophysiology, medicine, psychiatry, and, lastly, anthropology. In research, he was dedicated to work that would produce what Benjamin Franklin called “useful knowledge,” useful especially in terms of understanding mental illness, cultural conflict, and social disadvantage.

A soft-spoken man with a keen sense of humor, Alec was an excellent raconteur whose stories were often enhanced by an Irish brogue based on ties to Ireland, where his parents had been born. He has been described as a “Renaissance man,” as “the father of psychiatric epidemiology,” and as a “banner carrier for interdisciplinary research and teaching.”

Best known for the Stirling County Study, Alec instigated this endeavor in 1948. It is a psychiatric epidemiologic investigation of a typical general population in Atlantic Canada. It was begun when there were but a handful of such studies. Now, with hundreds of such investigations having been and still being carried out, it is the longest such study in North America and is still ongoing under the leadership of his wife and colleague of many years, Jane M. Murphy, Ph.D., professor of psychiatry at the Harvard Medical School, professor of epidemiology at the Harvard School of Public Health, and professor of psychiatry in the faculty of medicine of Dalhousie University.

Alec received a B.A. in 1932 from Princeton, an M.A. in 1934 from Cambridge, and an M.D. in 1936 from Johns Hopkins, where he was strongly influenced by the internationally renowned psychiatrist Adolph Meyer. Meyer’s view that psychopathology derives from multiple sources, including life experiences, left a permanent and indelible mark on Alec’s thinking. He spoke often of being especially proud to have been one of Meyer’s last chief residents.

During his training at Johns Hopkins, Alec married his first wife, Dorothea Cross, who also became a psychiatrist. Together they were granted a Social Science Research Fellowship to participate in anthropological seminars at Columbia University and then to be on leave during
the spring of 1940 to conduct fieldwork among the Navajo of New Mexico and the Yupik Eskimos of St. Lawrence Island, Alaska. The Navajo work had a strong influence on their future undertakings, especially Dorothea’s (5–9).

As a psychiatric resident, Alec became interested in photography as a tool for accurate description, an interest that found expression in his work among patients, among the Navajo and Yupik, and also later as an aid in community development (10–12).

As a U.S. Navy Medical Corps reservist, Alec was called to service on the day after the bombing of Pearl Harbor. He was soon transferred to the Department of the Interior to do a study of a Japanese Relocation Center. The purpose of this research, reported in *The Governing of Men* (13), was to observe how a group of evacuees reorganized the social fabric of their human relationships so as to function in an artificially created social environment. Next he was transferred to Washington to become chief of the Foreign Morale Analysis Division (FMAD) in the Office of War Information and was charged with mapping attitudes about surrender through the Japanese press and such sources as prisoner-of-war diaries, as reported in *Human Relations in a Changing World* (14). When the war was over, Alec became research leader of the team sent by the U.S. Strategic Bombing Survey to study the feelings and responses of survivors. Based on this experience, Alec wrote a description of Hiroshima after the bombing that appeared first in *Human Relations in a Changing World* and has been reprinted several times as an example of vivid prose.

Following discharge in 1946 with the rank of naval commander, Alec accepted positions at the Ithaca campus of Cornell University as professor in the Department of Sociology and Anthropology and in the School of Labor and Industrial Relations as well as in New York City at the Cornell Medical School. It was through the Department of Sociology and Anthropology that he started the Stirling County Study.

The first phase of the study led to the publication of three books. While each bore the subtitle *The Stirling County Study of Psychiatric Disorder and Sociocultural Environment*, the title of each was chosen by Alec as an engaging description or quotation. The first, *My Name Is Legion*, is a quotation from the Bible. Jesus asked a man who suffered a mental illness for his name. The man responded, “My name is Legion, for we are many” (15). The second, *People of Cove and Woodlot*, describes the diversity of the environment in which the study was carried out (16). The third, *The Character of Danger*, is a quotation from the pathologist Rudolf Virchow, who wrote that “the pathological process differs from the physiological process by the character of danger it entails for the continuance of life in general or of individual living components” (17).
The first of the three books presents the conceptual framework of the study, beginning with a description of the patterns of psychiatric disorders, which served as a “diagnostic manual” for the research. The theoretical orientation emphasized the concept of “sentiments” (18) and posited that the thwarting of “essential striving sentiments” may engender psychiatric disorders. Ten “striving sentiments” were described, involving physical security, sexual satisfaction, expressing hostility, expressing love, securing of love, securing recognition, expressing spontaneity, orientation in terms of one’s place and the place of others in society, maintaining membership in a social group, and the sense of belonging to a moral order. The central hypothesis for the research was that a higher prevalence of psychiatric disorders would be found in communities undermined by fractured social supports (described by the phrase “social disintegration”) where the striving sentiments were likely to be frustrated and unfulfilled.

The second book is an analysis of a continuum of social integration to disintegration exhibited in contrasting communities using poverty, secularization, and acculturation as key variables along with such other indicators of community malfunction as a large number of broken homes, extensive in- and out-migration, weak leadership, few associations, few patterns of recreation, history of disaster, and frequent evidences of hostility.

The third book presents the methods of gathering and evaluating information about psychiatric disorders and presents the findings. The main hypothesis was supported by a significantly higher prevalence in the areas of poverty and weakened social supports.

These books give findings based on preliminary research carried out between 1948 and 1951 as well as on a county-wide survey that took place in 1952. On the social science side, to which I contributed (16, 19–26), the preliminary work involved effort to understand the history of the area with a focus on the impact of technological and institutional changes. On the psychiatric side, advance work was carried out to design an appropriate instrument for gathering information about psychiatric symptoms. This task was carried out by psychologist Allister Macmillan, who served as deputy director until his death in 1958 (27). Also at this time, Alec became concerned to give back to the community a resource for the care of mentally ill patients. Thus, he established a local Community Mental Health Center, which ultimately became part of a network of such services provided by the government (28–30).

In addition to heading the Stirling Study, Alec directed the Cornell Southwest Applied Anthropology Project from 1948 to 1953. One aspect of this was a “traveling seminar,” which Alec designed to introduce administrators and technicians to principles of cultural change
and social diversity that would help them work in non-Western areas (31). The main endeavor was a study, to which I contributed, of a Navajo community undergoing the introduction of new irrigation procedures, to see how the residents adapted to such an innovation (32) as well as other fundamental changes like new patterns of housing (33).

Shortly after the Stirling Study was started, psychiatrist Thomas Rennie began a similar study in New York City. It was named the Midtown Manhattan Study and was sponsored by the Department of Psychiatry of the Cornell Medical School. Upon Rennie’s death in 1956, Alec became the study’s director, taking as his goal to help the existing staff prepare their findings for publication without altering the study’s unique methods and orientation (34, 35).

It became clear to Alec that questions should be asked about the extent to which the methods of the Stirling Study could be applied in different cultural and environmental settings and what differences or similarities in findings would result. The field work for these investigations took place among the Yupik Eskimos of St. Lawrence Island and the Yoruba of Nigeria, and in an area of New York City that had not been covered in the Midtown Study (36–41). Ultimately, the cross-cultural extensions of the Stirling work came to include a study in South Vietnam. Based on Alec’s World War II experiences, he was asked in the early 1970s to join an endeavor assessing the military use of herbicides on the civilian population of that war-torn country (42).

Through these projects as well as in reviews of the literature, Alec promoted the field of social psychiatry. In collaboration with others of similar training and interests, he published two volumes on social psychiatry (43, 44). They highlight the importance of factors in the social environment for personality development and mental health. They emphasize that cultural diversity must be examined in order to understand people’s perceptions of reality and their behavior in social settings, and they underscore that societal reactions to mental illness need to be taken into account in clinical settings as well as in communities.

In 1966, Alec accepted an invitation to form a new department at the Harvard School of Public Health. Following their divorce, Dorothea Leighton had been appointed professor of psychiatry in the School of Public Health of the University of North Carolina, where she was the chairperson of the Department of Mental Health when she retired in 1974. At the time of moving to Boston, Alec married Jane M. Murphy, who had been part of the Stirling Study since 1951 and who, along with several others from Cornell, joined him as a faculty member in the new department, which he named Behavioral Science.

In this new setting, Alec and Jane decided to direct their research energies to extending the Stirling Study as a longitudinal investigation.
Essential steps toward this goal included demonstrating that the diagnostic definitions that Alec had developed for the Stirling Study bore reasonable congruence to contemporary definitions and then building a computerized procedure for replicating the original psychiatric evaluations (45, 46). They also decided to seek publication of the results mainly in professional journals rather than in books, the rationale being that it would thus be possible to make the findings available in as timely a way as possible.

The expansion of the Stirling research ultimately included two new samples, follow-up of all subjects in each earlier sample, and two new validity studies (47–49). For each of the three samples (1952, 1970, and 1992), subjects were interviewed about the symptoms of depression and anxiety as well as about their medical histories and their experiences in family and community life. In addition, the general physicians of the county were interviewed by psychiatrists regarding the full range of psychiatric disorders experienced by the sample members. Because of the addition of new samples, the study grew to include more than four thousand subjects. The new goals were to estimate population trends over time regarding the prevalence, incidence, and outcomes related to mental illnesses and to relate these rates to life circumstances.

An interesting feature of the long-term work was that the titles of the original volumes proved to be prophetic. The number of people who suffered from some kind of psychiatric disorder was indeed “legion”—it was estimated at 20 percent. That figure seemed unbelievably high when first reported, but now all the large psychiatric epidemiologic studies in North America suggest about the same rate.

Most of the persons counted in such a rate did not receive psychiatric treatment. What happened to them over time indicated that psychiatric disorders do indeed exhibit a “character of danger” (50). Focusing on the 5 percent of the population who suffered from depression, it was found that most of these cases became chronic and exhibited increasing disability (51). The risk for premature death among depressed men was equal to and independent of the risks associated with alcoholism and cigarette smoking (3). Such independence was partly due to the infrequent combination of depression and alcoholism in the years up to the 1970s, which is a finding that may be changing with the passage of time.

Coupled with such evidence about outcome, it was found that depression was twice as common in the poor areas as in the more affluent areas (52). While the standard of living increased universally, the top tended to stay at the top and the bottom to remain as the bottom. The stable relationship between poverty and depression indicated that it was extremely difficult to break this association, even with effort to
Alexender Hamilton Leighton

improve local services and a community development project, both of which had been sponsored by the study (30, 53). Reviewing the much larger number of psychiatric epidemiology studies available today, it is clear that the most consistent finding is this relationship between mental illness and impoverished socioeconomic resources.

While it is widely thought that depression is increasing, the evidence is inconsistent and usually based on single interviews in which subjects are asked to recall their experiences with depression. The Stirling Study indicated that the 5 percent rate remained steady over the three samples (47). Given that depression is an etiologically complex disorder in which both genetic and environmental forces play a role, it is unlikely that substantial increases in rates would occur over relatively short periods of time. However, the distribution changed so that, while older men and women seemed to be doing better as indicated in a modest decrease in prevalence, the rate of depression among younger women increased. Ongoing analysis is directed to questions about how the role of women may have changed over the last half of the twentieth century so as to contribute to this increase.

Pondering these results toward the end of his life, Alec indicated that, although he might have wished for a more optimistic overview, he felt the Stirling Study had produced “useful knowledge” and that, based on its evidence and that of other studies, better questions could be asked in future research.

During the years at the Harvard School of Public Health, psychiatrist Morton Beiser played an important role in the Stirling research. He took the lead in completing a five-year study in which clinical psychiatrists visited a panel of subjects in their homes each summer. For this, 120 subjects were selected to represent both psychiatrically ill and well so that the validity of the survey methods could be examined and observation could be made of what happened to these subjects over the next years (54–56). This study threw light on the assets and resources of personality that some subjects mobilized to overcome the dangers and disabilities associated with psychiatric disorders.

In 1975 Alec accepted an appointment to join the medical faculty of Dalhousie University, for which he received a National Health Scientist Award from the Canadian government. He became a professor in the Department of Psychiatry and also in the Department of Community Health and Epidemiology. Jane remained at Harvard, where the Stirling staff was located. She became director of the study at that time. Thanks to much traveling, it was rare for any week to go by without Alec and Jane’s being together in Boston, Halifax, or Stirling County.

At Dalhousie, Alec instituted a teaching mode named the “Seminar on Wheels,” patterned on the “traveling seminar” that was part of the
Cornell Southwest Project. Each year for a number of years, he took groups of psychiatric residents to Stirling County to introduce them to general population research outside of treatment centers and to give didactic instruction in psychiatric epidemiology. During this period, he also founded the Canadian Academy of Psychiatric Epidemiology (CAPE), an organization that has a thriving and increasing membership. In conjunction with the Canadian Psychiatric Association, CAPE gives an annual “Alec Leighton Award.” The Department of Psychiatry at Dalhousie has instituted a similar award for outstanding resident of the year.

Alec was born on 17 July 1908, the son of Gertrude Ann Hamilton and Archibald Ogilvie Leighton. He was predeceased by his sister, Gertrude, and his first wife, Dorothea. He is survived by his wife, Jane, and two children, Dr. Doreen Leighton Walker and Dr. Frederick (Ted) Leighton, as well as five grandchildren.

My personal association with Alec began in 1950, when I became a member of the Stirling Study in its preliminary phase. As part of the “French-speaking” team, I worked with others in the Acadian communities to describe historical changes and to provide profiles of the key variables of community functioning (19–24). I also contributed to the development of methods for selecting communities of differing levels of integration and for applying the concept of sentiments in different cultural settings (25, 26). Alec also made it possible for me to spend several months on the Navajo Reservation, an experience that was, for me, a true “rite of passage” into the field of anthropology. When I was accepted as a graduate student at Cornell, I was very happy that Alec became my thesis director. After receiving my doctorate in 1956, I returned to and remained at Laval University. Throughout my academic life, I have drawn on many of the principles learned from Alec. I often asked him for comments on my own manuscripts, and invariably I received observations and recommendations that enriched the content of my reports.

In 1991, I proposed Alec for an honorary doctorate from Laval. On the occasion of the awarding of the degree, I had the privilege of describing and praising Alec’s many accomplishments. I emphasized that the most striking contributions of his career were the training of many young scientists and his lifelong involvement in interdisciplinary work. Then, in 2003, I participated in a festschrift for Alec sponsored by the Canadian Anthropology Society. My presentation, along with the others, was published in a special issue of Transcultural Psychiatry honoring Alec (57).

If I were asked to define the main characteristics of Alec’s scientific contribution, I would emphasize his training in many disciplines, his special talent for working with groups of individuals trained in both
established and emerging fields, his ability to identify crucial research questions, and his natural tendency to build conceptual frameworks and develop operational procedures for gathering relevant data. He was a motivator whose scientific reputation made him a charismatic leader. He had the vision to become a pioneer, the questioning mind and intellectual skills to address multifarious phenomena, and the type of personality to attract close collaborators from diverse scientific fields. And yet, he had a young mind and was at ease with members of different generations. This was an asset that made him an excellent director in every team he led.

Another feature of Alec’s career that impressed me and many others was his ability to strike the right balance between fundamental research and applied projects. He was among a handful of scholars who created the Society for Applied Anthropology, and his teaching in this field was the best I have experienced. Added to that was his effectiveness as a team leader. Alec was highly sensitive to the needs of individual researchers and to the imperatives of harmonious social relationships. His altruistic ideals kept him close to the individuals with whom he worked and to the communities he studied.

Alec has been at the heart of my anthropological career, and we remained in close contact through the years. The type of influence that Alec Leighton had on me has been reproduced with different colors and rich intensity among hundreds of others. As a result, I take the liberty to say that “my name is Legion.”


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References


