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Editorial Introduction

Peter Wegner and Peter Richardson
Editors

This issue contains articles by President Ruth Simmons and former Provosts Bill Simmons and Maurice Glicksman, as well as an article by Louise Lamphere about Brown's evolution in supporting gender-neutral professorships for women over the last 30 years.

Ruth Simmons' article, "Fulfilling the public trust in a time of crisis", reviews her role as President of the New England Association of Schools and Colleges in encouraging public trust about colleges. Our goals should include contributing to improvement in educational quality at the K-12 levels, avoiding needless duplications, being open to show probity in our practices, and continue to work hard to retain the public trust.

The article by Bill Simmons explores the status of charisma in both social and political contexts, considering the role of sociologists like Max Weber, Clifford Geertz, and Durkheim and politicians like Robespierre, Stalin, and Hitler whose charisma was very destructive to the status of the world. We hope that the charisma of Obama, who is also mentioned in the article, will have a positive impact on the U.S. and world culture.

Maurice Glicksman describes his graduate program at the University of Chicago working with Nobel Laureate Enrico Fermi and other physicists for a PhD degree in the early 1950s. Glicksman's switch on graduation from academia to industry was questioned by his supervisors but certainly contributed to his overall work as a professor and provost at Brown.

Louise Lamphere writes that her financial contribution to support a visiting assistant professorship in gender studies reflects the strong evolution of gender studies at Brown, responsive to the suit against the University 4 decades ago due to Brown's failure at the time to provide equal opportunity for women faculty in promotion to tenure. Louise's generous contribution to our efforts at Brown recognizes that over many years here we have made significant strides towards equal opportunity.

Lew Lipsitt examines the impact of behavior on the quality of human life. He starts by exploring the impact of trayless meals on the level of food and water consumed in cafeterias, and relates this to his work on reducing crib deaths by insisting that babies sleep on their backs and not on their tummies. Greater focus on adjustment of behavior could contribute greatly to making the world a better place by reducing bad behavior that causes accidents.

Peter Wegner examines the impact of A. J. Ayer's book "Language, Truth, and Logic" published in 1936, on philosophical, scientific, and political notions of truth.

Ayer is a famous philosopher whose lectures were attended by Peter while an undergraduate and whose daughter married a Brown professor whom Ayer used to visit prior to his death in 1989.

Peter Richardson examines the impact of early deaths of some of our students, before and even well after graduation, referring to some of his own students, and to the fact that Sayles Hall was built in memory of a student who died too soon. His childhood years in England first made him aware of premature death due to war, and he suggests that a place to commemorate students who have died prematurely would be appropriate at Brown.

This issue is late because several of our authors were late in submitting their articles, and we hope that those planning to submit an article for our spring issue can let us have it by mid-April, so we can publish the spring issue in May. Please inform Cheryl Moreau of your publication plans.

Fulfilling the Public Trust in a Time of Crisis[1]

Ruth J. Simmons
President

In the past year, I had the privilege of serving as President of the New England Association of Schools and Colleges (NEASC), a position that revealed to me in unexpected ways the many accomplishments and unique challenges of U.S. education today. It was particularly interesting to serve in this role at a time of extraordinary upheaval and uncertainty around the world. Challenges to endowment spending from Congress, attacks on the educational accreditation process, the precipitous collapse of major global businesses, and the general plummeting of public trust in various sectors affected the outlook for virtually every educational level and sector.

This so-called once in a century perfect storm is indeed having a significant impact on higher education. Endowment portfolios have suffered massive losses, significant financial reversals have caused many families to rethink higher education plans, and university budgets are being significantly restructured as a result of the loss of revenue from endowment, fundraising and anticipated lower tuition.

At the same time, this crisis presents an unusual opportunity. While one cannot deny or minimize the dislocation that is bound to occur as resources shrink, we have an opportunity to go far beyond temporary budget adjustments and tinkering with superficial change. We can rethink how we are organized, determine the essential resources that promote our missions, examine how we can improve links across different sectors of education, and discover how our student learning, teaching, and research efforts can be designed to conserve and deploy limited resources in a more constrained environment.

Most of us have already begun efforts to reassess how we are organized and what we can do to redesign our core efforts to greatest efficacy. These times and our public insist that we go farther, certainly beyond efforts to date. Fortunately, higher education is better positioned than most sectors to respond to these calls. We are, through our well-developed system of peer review and information-sharing, aware of how competitors and allies alike shape curricula, solve various problems, exploit opportunities, and improve on their past failures and successes. We therefore have the opportunity to identify ways of reducing duplication, increasing resource sharing, and honing inter-institutional effectiveness.

Two years ago, with a speed and decisiveness rarely seen in higher education, schools and colleges, moving faster than government relief, immediately opened their doors to students and faculty from colleges and universities closed by Hurricane Katrina. We can address uncertainty and crisis with ease when walls created by competition come down - walls built high and fortified by elitism, bureaucracy, competitiveness, and

[1] Adapted from the Presidential Address delivered at the 2008 NEASC Annual Meeting

entitlement. Cooperation of this kind need not be a once in a century occurrence in response to a crisis of trust or a crisis of resources.

We have been fortunate in that demand for education has grown stronger in every generation. The vigor of that demand in this country rests in part on the perceived accessibility of education as well as an understanding of formal learning as enabling of long term personal and career success. Horace Mann, an 1819 graduate of Brown, saw education as a necessary check on capital. While his theory that free public education would keep the domination of capital in check may be disproven by the current crisis, he nevertheless understood that education is one of the most important means of preserving a free, open and equal society. Mann wrote in his 1848 Twelfth Annual Report as Secretary of the Massachusetts State Board of Education:

> "Education…, beyond all other devices of human origin, is a great equalizer of the conditions of men, -- the balance wheel of the social machinery."

Mann's premise about the general societal value of education is widely accepted. However, we see signs of a public growing ever more concerned about whether the balance wheel is working as effectively as it should.

The governance process as practiced regularly both internally and with the help of outside visiting bodies enables us to examine continuously how well we are developing the "vast treasures of human talent" in the service of society. Our ability as educators to determine the standards and judge the quality of this enterprise is all important. While external stakeholders are right to pose questions and identify areas of needed improvement, the expertise for setting standards in education lies with those educated to, experienced at, and prepared for the task. In the current environment, we will surely hear more calls for radical, sometimes irrational, and unproven change in the way we function across the spectrum of education. If we are to hold on to the responsibility for shaping our future, we must demonstrate greater capacity for change and for improved use of resources.

Recent congressional forays into how private institutions manage and allocate their assets and revenue bring home a point that we often forget: no matter how we are financed, we are all public institutions. We serve the public and are accountable to them for how well we conduct this enterprise. Even as we fight to minimize the impact of the financial crisis upon our institutions, we have an opportunity to demonstrate our fitness to govern ourselves and to determine how best to fulfill our obligation to the public. At the university level, we can rethink the lines that divide public from private, two year from four year, rich from poor. Future perspectives on higher education will depend on how we manage and improve upon our work not merely as single institutions but as viable contributors to the health of the entire sector.

In the past decade, we have seen countless universities traverse the oceans to enter into relationships with universities abroad but which fail to cross the city to link arms with local institutions. Competition, while a useful tool for stoking loyalty and brand

differentiation, should not force us into silos where we needlessly duplicate resources – resources that could be used to better serve the public and expand access to education. Linking dissimilar institutions with cultures that have grown up over decades and centuries is never easy, but the effort is well worth it when it leads to usefully combined assets, greater opportunities for our students, and economies that inspire greater public confidence in how we serve the public good.

There are countless ways in which this could occur. Shared equipment, technology, library resources, and administrative units should enable us to redirect resources to strengthen academic areas, moderate tuition growth, and fund financial aid. Reducing impediments to cross enrollment and joint degrees would add much to the value we offer our students. Most of all, fewer barriers across institutions would be demonstrative of our strong commitment to the public interest. Inter-institutional resolve can even improve on federal efforts to address manpower needs or to encourage interest in math, science, engineering and technology. It can also go a long way toward improving the quality of education at the K-12 level. Schools and colleges can, working together, be even more effective than they have been in the past in setting new directions and standards in education.

Congressional efforts to force a change in higher education endowment spending and the widespread support that this effort appeared to enjoy is a warning to us that if we do not address the public's concerns about inefficiencies, lax standards, uncertain outcomes and spiraling costs, we will be facing even more marked deterioration of public trust.

Since we are a profession of learners, the decline of other sectors can be instructive to us. Those that have not heeded signs of a growing public skepticism and distrust have sometimes advanced to the brink of self-destruction. There is much in our educational approach that can save us from a similar fate if we pay heed to the warning signs of sector collapse.

During this period, we might use our well developed arteries of communication and information sharing for a heightened level of cooperation: setting goals for shared facilities, technologies, curricula, and expertise. Competitive vanity rankings work against the public interest when institutions must demonstrate that they are independently and unnecessarily investing in facilities, resources and services that are uniquely theirs. Competitive efforts to demonstrate such expenditures can ultimately stifle innovation, differentiation, and, of course, cost effectiveness. Measuring the extent to which institutions cooperate with others to better serve their missions would be a welcome addition to such rankings.

Other nations continue to look to the United States as evidence of what education can achieve for national prosperity and civil society. Once, too, other nations looked to the United States for excellence in automobile building, financial strength, and middle class prosperity. As I end my tenure as president of NEASC, having observed the interplay of issues emerging across elementary, secondary and higher education, I am

persuaded that we have an opportunity to avoid the pitfalls of troubled industries. By lowering barriers to economies, fostering greater collaboration across and within educational sectors, cost-sharing across institutions, and making such practices known to the public, U.S. educational institutions might escape the fate of industries that have suffered massive and irreversible failure.

We depend on the public's trust and we should work hard to preserve it.

Charisma

William Simmons
Professor of Anthropology

The person most closely associated with the social scientific interest in charisma (meaning "gift of grace") is the turn of the 20th century German sociologist, Max Weber, whose writings on politics, economics, and world religions launched the word into the vocabularies of academic disciplines and through them to generations of students. According to Weber:

The term 'charisma' will be applied to a certain quality of an individual personality by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities.…How the quality in question would be ultimately judged from any ethical, aesthetic, or other such point of view is naturally entirely indifferent for purposes of definition (Weber 1947: 358-59).

Charismatic authority is.…sharply opposed both to rational, and particularly bureaucratic authority. (ibid.: 361)

In the pure type, it disdains and repudiates economic exploitation of the gifts of grace as a source of income, though, to be sure, this often remains more of an ideal than a fact. (ibid.: 362)

The anthropologist Clifford Geertz noted that, although the idiom of charisma varies from one cultural setting to another, "it would reflect the fact that the charisma of the dominant figures of society and that of those who hurl themselves against that dominance stem from a common source: the inherent sacredness of central authority" (Geertz 1983: 146).

In his *Academic Charisma and the Origins of the Research University*, historian William Clark attributes charisma to faculty members in prominent universities. According to Clark, the star system of faculty appointments injects charisma even into this most rational of callings: "At places like Harvard University, the process eventually developed to recognizing not only the right but also the 'best person,' presumably on earth" (Clark 2006: 19).

A charismatic leader, always on the side of the sacred in Durkheim's dichotomy of sacred and profane, inspires freedom from societal routines and constraints. According to Durkheim, who does not use the term but writes of its expression, a speaker who has "achieved communion" with a crowd can sometimes feel "possessed by a moral force greater than he…. It is then no longer a mere individual who speaks but a group incarnated and personified" (Durkheim 1995 [1912]: 212).

Weber (and in a way, Thomas Carlyle, in his writing on the role of heroes in history) believed that society must look to charismatic leaders (but not violent revolutionaries) to transform the iron cage of secularism, bureaucracy, social inequality, and loss of individual freedoms in modern Western society. Carlyle's fear of charismatic revolutionaries such as Robespierre, however, contributed to a tainting of confidence in charismatic leadership generally, with the rise of Hitler providing a recent example of such leadership gone wrong. Divine powers, opined Carlyle, were driving England toward the worship of hero kings in those "stormtost seas, French Revolutions, Chartisms, [and] Manchester Insurrections that make the heart sick in these bad days" (Carlyle 1898: 36).

In this sense, Senator and presidential candidate John McCain fits a traditional heroic motif—one who has fought the enemy in distant and dangerous places to emerge from captivity wounded and undaunted. This idiom of charisma comes from an earlier day--the hero-warrior who returns when needed to rescue the nation at its moment of peril, along the lines of Nathaniel Hawthorne's "Gray Champion", who embodied a myth recurrent in Anglo-American history and folklore.

The prospect of Senator Barack Obama's presidential campaign appearance before 75,000 supporters in Denver brought expressions of the fear of charismatic leadership close to home:

On the July 23 edition of CNN Headline News…guest Ben Stein, while discussing Sen. Barack Obama's plan to deliver his speech accepting the Democratic presidential nomination at Denver's Invesco Field, stated that he did not "like the idea of Senator Obama giving his acceptance speech in front of 75,000 wildly cheering people" because "[t]hat is not the way we do things in political parties in the United States of America." Stein continued: "Seventy-five-thousand people at an outdoor sports palace, well, that's something the Fuehrer would have done….it's scarily authoritarian (Media Matters, July 24, 2008).

A recent opinion piece in the *Wall Street Journal* by Fouad Ajami, entitled "Obama and the Politics of Crowds" made a similar point, substituting Peron, Nasser, and the Ayatollah Khoumeini for Robespierre and Hitler who in the eyes of crowds "would set the world right." Ajami disclosed that "those vast Obama crowds…have recalled for me the politics of charisma that wrecked Arab and Muslim societies." (WSJ, October 30, 2008: A19)

Peggy Noonan, in another opinion piece on the Obama campaign ("Obama and the Runaway Train: the race, the case, a hope for grace" WSJ October 31, 2008) invoked a different heroic script attuned to a contemporary and pluralistic America:

He has within him the possibility to change the direction and tone of American foreign policy, which need changing;…his victory would provide a fresh start in a nation in which a fresh start would come as a national relief. He climbed deep stairs, born off the continent with no father to guide, a dreamy, abandoning mother, mixed race, no

connections. He rose with guts and gifts….We witnessed from him this year something unique in American politics: He took down a political machine without raising his voice."

Noonan might have added that Obama is also associated with many different places—Kansas, Hawaii, Indonesia, Chicago, New York, Cambridge, Kenya and with two different world religions. His gift has been to communicate to diverse geographical, racial, religious, and class-based communities that they are included in his vision of the nation (that in a sense he embodies), and that these many identities are interconnected—something to which the nation in its motto aspires but is rarely aroused to feel. Obama's capacity to arouse and incorporate these widely diverse identities has I think proven to be the basis for hope in him as the one who is capable of leading the nation from an old world that is dissolving to a terrain ahead that is unmapped and dangerous.

A final topic for reflection is the meaning or perhaps the genuineness of charisma in media dependent representations of reality. In this I am reminded of the Puritan aversion to theater (see Barish 1981) and the contemporary merging of theater and politics. Whatever the concerns one might have about the effectiveness of impression management in the packaging and presentation of aspiring political leaders (and thus in their definition), it would seem that political personae will become more fabricated and impersonated when actors and entertainers rise to political office.

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Graduate Study in the 1950's

Maurice Glicksman
Professor Emeritus of Engineering

I was a graduate student in the University of Chicago Physics Department in the early 1950's. It was unique to Chicago, but the flavor of the program and the experiences I had may be of broader interest.

The U of C Physics Department had been rebuilt after World War II, with Enrico Fermi (Nobel Prize in Physics in 1938) as its major attraction. At the time, many considered him one of the leading physicists in the world, having shown genius in both theory and experiment, although he was proudest of his experimental work. The University had considerable research resources, having launched three research institutes in physics-related areas, and undertaken the construction of a particle accelerator at the forefront in energy for the study of nuclear interactions.

Graduate students were recruited from among those who had done research outside of academia during the war – and who were anxious to receive recognition for their skills and accomplishments – and the young crop of post-war students. The Department accepted more applicants than the faculty could oversee in the doctoral program, and weeded them out with exams. There were two sets of written examinations: The "Qualifying" at the end of the first year of study, and the three-day "Basic" usually one or two years later. Students had to leave if they failed the Qualifying exam; they could retake the Basic exam. Once admitted to Ph. D. candidacy, students took an oral exam in their special field, and defended their theses.

I was among the post-war physicists, having been too young to be drafted into the Canadian Army; I entered college in 1946. In fact my undergraduate freshman class (at Queen's University) had 1000 Science students, of whom 75 came from high school and 925 out of the armed forces. As a sophomore I decided I wanted better research opportunities and looked for a graduate school that would take me. U of C was an attractive and attainable goal, since they accepted passing their "graduate examination" in lieu of a bachelor's degree, and I (the only applicant from Kingston, Ontario) took such a proctored examination at the beginning of my junior year. I was surprised to get an immediate response, offering me admission as a graduate student and a fellowship covering tuition and living expenses. The U of C responded to my "yes" by telegraphing me that they would accept me <u>after</u> I finished my junior year.

There were thirty-odd of us beginning physics graduate students. I jumped in, signing up for a full program and auditing an equal number of physics courses. Shortly after I arrived, Richard Garwin (a former student of Fermi's who was a junior faculty member in the department) invited me to join his group (I was his "first" graduate student) and I soaked in the talk and serious physics discussion among the faculty and students who came together. It also put me into contact with others in Fermi's group of faculty and graduate students (among whom were Frank Yang and T. D. Lee, who were

to win Nobels shortly afterwards). At the end of that first year, I took the Qualifying Exam, along with some twenty-odd others (a third had left U of C during that first year) and stood 6th in the group of 13 successful students. I headed for Canada for the summer, to finish earlier research begun at the Atomic Energy Project in Chalk River, Ontario.

When I returned for my second year, things had changed. Dick Garwin told me that I could not continue to work in his laboratory, and I took that as his response to my average pass in the Qualifying Exam. [In a conversation many years later, Dick pointed out that his notice to me was because he was planning to leave the U of C and could not continue to oversee my research.] My despair over my not meeting Dick's or my standards was quickly dispelled when Herb Anderson, a senior professor and Director of the Institute for Nuclear Studies, invited me to join his laboratory. Herb was also a former student of Fermi's (at Columbia University) and that brought me into the Fermi group again.

I was also able to increase my income in two ways: I was allowed to be a research assistant and a part-time teaching assistant, and I took on a lectureship at a local Chicago institution (Roosevelt College/University). These were essential to my survival as a married graduate student with a baby. I also learned a lesson from my teaching experiences that helped when I came to Brown many years later. I was one of five teaching assistants that worked on the major junior course in physics in the U of C college program. The instructor gave us the full responsibility for assigning homework, and we also set the exams, with his approval. The problem was that we were advanced and competitive, and we set problems and test questions in part to show each other how "smart" we were. My discussion group had the best students, and I recall chatting with my top student, asking him about his plans to go on to graduate work in physics. He looked askance at me and said he was switching to chemistry, since he had only been able to score 63% in his work in physics (the top grade we gave out!). We had lost sight of the real goal, which was to help the students learn and not to show off our "smartness!'

Graduate teaching was taken seriously by the faculty, albeit all courses could be graded pass/fail. I was exposed to statistical mechanics by Maria Goeppert-Mayer, advanced mechanics by Clarence Zener, advanced quantum mechanics by Gregor Wentzel, and nuclear physics and solid state physics by Enrico Fermi. Fermi's homework questions often required the cooperation of the graders and the students to solve the problems he assigned. The notes from some of those courses circulated (in published form) for many years afterwards. The first printing of Fermi's course notes (written by students of his) had the typo-distorted title "Unclear Physics").

Fermi's and his group's students were supposed to successfully complete two projects: one assigned by Fermi or his colleague, and the thesis project. My assigned job was key to the experiments Fermi was beginning: I was to design and build an amplifier for the signals coming from the charged particle detectors, which were known as scintillation counters. I had a skilled technician to work with me, and we designed and built what were known as "traveling wave amplifiers." They worked well.

My thesis was another matter. Fermi and his group had done early measurements of the interaction of pi-mesons with protons, using the synchrocyclotron which had been built at the U of C to provide mesons of energies up to about 135 million electron-volts. Fermi felt that these early measurements needed to be fleshed out with more detail on the scattering processes and wanted me to do that. He felt the appropriate tool for doing this was a cloud chamber and had sent me to the University of Michigan one summer to study with Carl Anderson, an expert on cloud chambers. I had then to design and build such a chamber.

But I did not want to just add detail to the pioneering work Fermi had done the previous year, but rather wanted to discover new things. I worked with the synchrocyclotron to enhance its production of the highest energy pi-mesons (over 200 million electron volts), and I designed a cloud chamber that would do both kinds of experiments: it would look at the lower energy mesons' interactions and also could detect what the highest energy mesons did. I was hoping that those high energy mesons would produce new, strange particles.

To build this new chamber I needed help: money and people. The source for that support had to come through Herb Anderson, my mentor and the Institute Director. I had a memorable meeting with Herb in the local hospital. [Herb suffered from beryllicosis, and in the cold weather he would be hospitalized if he had a cold; he often spent the winters at China Lake, California to get away from the weather and the threats to his life.] He basically told me that I grossly underestimated the time to build and test out the new device I had designed and that his conscience did not allow him to let me starve my family for the five years he estimated. He pointed out that I could look for the new particles with our current equipment but that since I might not find any, I should also plan an experiment with a positive result, i.e., extend the earlier Fermi work to the higher meson energies that I had been able to get the machine to produce. I asked him if Fermi would be unhappy about my not doing the lower energy studies, and he said not to worry about that. I took his advice. Fermi approved, with the proviso that my study of the meson-proton interaction had to be done with more scattering angle measurements, because of the greater complexity of the interaction at higher energies.

The result of my experiments was a surprise to all. Fermi had expected that the meson-proton interaction would decrease at higher energies; instead it rose dramatically. Herb was now out of the hospital (it was spring) and spoke to me in the lab, saying they were all excited about the new phenomena I had discovered. He said Fermi had asked him to approach me about working together with Enrico on an extension of his earlier measurements to the higher energies I was studying. In reply to my comment about why should I let Fermi get in on the new work which he had not supported originally, Herb pointed out that I would never regret having a research paper authored jointly with Enrico Fermi.

Herb was right. Working with Enrico was a delight. He did his share of the experimental work, coming each morning, but leaving at 6 p.m. during the 5-day runs. Enrico told me that he wanted that privilege because of his "advanced" age (just over 50;

I was 24 and my work day was 24 hours) and I was fine with that. We sat in the control room of the machine which was running the experiments, and the data stream arriving in front of our eyes was continually analyzed by Fermi, who would come out with better values defining the interaction as more data accumulated. The experiments went well and a significant paper was the result.

That summer Enrico went off to Los Alamos to use the large computer there to analyze the new data, as well as my thesis data on the interactions at the highest energies. I repeated my thesis experiments twice, and used the computer at the Argonne Laboratory to analyze the data. Fermi and I got different results. My results showed that the strong interaction (at about 190 million electron volts) could be the result of a "resonance" which implied an energetic nucleon state (i.e., a new particle of short life), while Fermi's solution showed no such resonance, but rather a large positive contribution to the interaction from several states. My solution was about twice as probable as Fermi's. At the following "Rochester" conference of workers at the forefront in high energy research, the analytical results were described by Hans Bethe as the "Fermi" solution and the "Glicksman" solution; Bethe and colleagues at Cornell had done the analysis as well and also found my solution.

I had a key meeting with Enrico to discuss how I should handle these two alternate explanations in my thesis. Herb was in China Lake (it was winter) and Enrico was chairman of my thesis committee and Herb's temporary replacement as my thesis advisor. Fermi said to me that "we" experimentalists have to be careful in explaining our data to the theorists. We publish an unusual result, and the theorists retire to the mountains to come up with theories to explain our results. A year later they emerge with new theories to explain our results, and find that, in the mean time, other experiments have led to a different result. Our reputation is gone and our name is now "mud", "M-U-D" as he emphasized. As a result of his advice, I was careful in publishing my results to make clear that my analysis was just one possibility, and that other possibilities were feasible.

The U of C physics faculty expected to educate academics, in their view the cream of the crop. My problem was that the salaries of starting level academics at the best institutions were low (in 1954, a Cal Tech or Princeton assistant professor could earn perhaps $3000 a year) and I had a wife and two very small children. I could not consider the Cal Tech opportunity; another University did put together a package that would have allowed me to survive economically, but the department was weak and there were not senior colleagues from whom I might learn. I took an industrial research position and managed to do the research I wanted, although an unhappy and somewhat angry Herb Anderson told me that I had thus closed the doors to my predestined academic career!

Graduate programs are often the incubators of innovation and exciting new results, and my experience at the University of Chicago certainly supports this. Graduate students dream of lofty goals pushing their subject frontier forward. I did have contact with so many people brighter than I, leaving me in awe at times. Two of my colleagues

who finished as I arrived did receive Nobel prizes honoring their work, and two of the younger colleagues who were there when I left also received such recognition.

But the story has a sad ending. I stayed at the U of C for a year as a postdoctoral fellow. The summer of 1954 was exciting, as new accelerators more powerful than ours were starting to spew out results. In September several of us were in Enrico's office (he had been in Europe, lecturing at a summer school that is now named from him) when he walked in. We were shocked at his appearance, and he teased me, saying he could not eat -- a ritual he pointed out I enjoyed very much. He had avoided medical attention until returning to the United States. He died the day I left Chicago, November 28, 1954.

Closing the Circle & Moving Forward

Louise Lamphere
Distinguished Professor University of New Mexico

The establishment of the Louise Lamphere Visiting Assistant Professor in Gender Studies brings my forty-year relationship with Brown University full circle and sets the stage for Brown to make new contributions to the study of gender. The inauguration of this position brought me back to Brown and signals the ongoing importance of gender studies both to Anthropology and to Brown University.

Through the Lamphere case I learned that change only comes through institutional transformation that puts new structures in place. I believe that the Lamphere case had a positive and lasting impact on Brown. It changed the structure of hiring, promotion, and tenure. Now, by doing something positive that will enhance the teaching and research mission of the university, I hope to contribute to making Brown at center for future progress in gender studies.

Brown was a much different place in 1968, the year that I became an assistant Professor in the joint Anthropology and Sociology Department. Senior and retired faculty will remember that women faculty were rare. There were only 25 women in a faculty over 300 and only 12 were tenured. I was the first tenure track female Assistant Professor in either Sociology or Anthropology. Pembroke and Brown were still separate institutions. When I arrived, Brown's reputation among Ivy League students was as a fraternity school "at the bottom of the Ivy League". Pembroke, then a separate institution, was primarily seen as a set of female dorms with "parietal rules", sit-down dinners, and a "white gloves" atmosphere. Brown men outnumbered Pembroke women 2 l/2 to one.

In my first six years at Brown, the institution changed tremendously. Black Students from Pembroke helped lead the walkout of students and the demand for more open admissions shortly after I arrived. The "new curriculum" was passed in the spring of 1969. The anti-war movement led to the Brown Strike of 1970 and an alternative graduation that Spring. The Brown Corporation voted to merge Pembroke and Brown in June of 1971. Like many junior faculty, I supported the New Curriculum, taught my classes on a credit/ no-credit basis, and participated in a number of Group Independent Study Projects as faculty sponsor. As a young feminist anthropologist I taught a course on the Cross-cultural Perspectives on Women during 1972-73 and put together a collection of essays with Michelle Rosaldo of Stanford called *Woman, Culture and Society* which became an academic "best seller" with 75,000 copies sold.

When I came up for tenure, there were few deadlines, standards or procedures. I felt I had a substantial publication record (one book, one edited collection, six articles in journals and edited collections), at least equal to my male colleague who had just received tenure. I did not find out that I had been denied tenure until a few days before

graduation and was unable to get a hearing with top administration officials. Out of frustration and feeling that my work on gender had not received a fair hearing, I hired a lawyer. I had put too much into my academic career at Brown to give up. I filed a Title VII Suit in Federal Court. The case eventually became a class action and three other women faculty joined the suit. The negotiations were long and complex, but with the help of Arlene Gorton and a committee of faculty, plaintiffs and the administration were finally able to agree on a Consent Decree in September 1977. Three of us were awarded tenure. Most important, the university agreed to an Affirmative Action Committee, a method for resolving other claims that could be brought by class members, a set of internal procedures for promotion and tenure and goals and timetables for the next ten years.

When I returned to Brown in the fall of 1979, I resumed teaching and working with graduate students. Joan Wallach Scott who was brought to Brown as the new Nancy Duke Lewis Professor founded the Pembroke Center for Teaching and Research on Women. In 1982 she began a series of Pembroke Seminars which each year had a theme and a lively set of conversations among the post-doctoral fellows, participating Brown faculty, and guest lecturers. Ever since I participated in these seminars I have felt that the Pembroke Center was not only a haven for the study of women and gender, but also a context that nourished the kind of interdisciplinary research that I have always valued. In 1986, an offer from the highly ranked Anthropology Department at the University of New Mexico lured me away, but the pace of change at Brown did not slow down. Now, women are almost a third of the Brown faculty. There are 213 female faculty members, 134 of whom are tenured.

When I looked at this new Brown, I saw a number of qualities that I thought made it an ideal institution to grow Gender Studies: a more sympathetic administration, new appointments in Anthropology, and a flourishing Pembroke Center. When I first approached President Simmons, Brown's first woman President and first African-American President, about the possibility of funding a Visiting Assistant Professorship, she was enthusiastic. David Kertzer, who had been an undergraduate Anthropology Major when I first came to Brown, was Chair of the Anthropology Department when I first began to think about this gift and is now Provost. His added support was crucial as well.

The Anthropology Department is also a much different place, with new emphases on transnationalism; power and inequality; warfare and militarization; medicine, health and the body; and ethnicity, race and nationalism. Faculty examine these topics through a gendered lens. In addition to Marida Hollos and Lina Fruzzetti, who were faculty members with an interest in gender when I was at Brown in the 1980s, the Anthropology Department has added a number of senior faculty who specialize in gender: Matt Gutmann, Catherine Lutz, Kay Warren, and Nicholas Townsend. In the last few years, young assistant professors and post-doctoral fellows (Sherine Hamdy, Paja Faudree, Marcy Brink-Danan, and Yukiko Koga) have added diversity to the department, its curriculum, and its gender focus.

These changes have created the possibility for new connections between the Anthropology Department and the Pembroke Center, which is still in place, having just moved to the newly refurbished Pembroke Hall. The Lamphere Visiting Assistant Professorship will be jointly housed in both the Pembroke Center and the Anthropology Department, assuring that the continuing interdisciplinary conversation around issues of gender both includes anthropology and has an impact on our discipline as well.

At first it may seem contradictory for someone who has sued a university to make a substantial donation to the same institution. But for me this is very much about "closing the circle," choosing to support the changes that have come to Brown in the last forty years and strengthening the emphasis on gender which is already part of the two units where I spent some of my most formative intellectual years: the Pembroke Institute and the Department of Anthropology.

My hope is that the Louise Lamphere Visiting Assistant Professorship will help move research and teaching on gender studies forward, playing a small role in enhancing Brown's continued national reputation in this area.

Students Lead the Way

Lewis P. Lipsitt
Professor Emeritus of Psychology

Have you ever thought about all the water and chemicals that go down the drain cleaning thousands of trays in school cafeterias and military mess halls? Almost a half gallon of water is required to wash just one tray!

At Brown, adoption of trayless meals in the dining halls reminds us that preservation of the environment and of our resources has become an urgent matter. The elimination of dinner trays reduces waste of energy, water, and food. Students are leading the way, as so often they do. We are reminded that human behavior is at the root of conservation and our survival, not to mention the comfort and convenience of future generations. We don't know yet about the efficacy of the new, apparently informal, policy designed to at least reduce tray use; there's room for a sociological and behavioral study there.

Major economists, according to New York Times columnist and Brown graduate David Brooks, are now suggesting that an understanding of today's world-wide economic disaster gains little from traditional economic models, because it is human behavior that is driving the crisis. The economists do not usually take into account people's perceptions, their predictions about their personal welfare and future, their hopes and aspirations, their pleasure-strivings and their long-term avoidance of pain, inconvenience, and loss of self-respect. Somewhat belatedly, economists are coming to realize that behavior is in fact at the front of economic processes.

Food gathering in cafeterias reveals there is something about having to actually carry one's plate back to the dining table that impels people to take less food. That "something," of course, is human behavior and its consequences, including the rewards inherent in behaving this way or that when there are choices. A fine series of studies carried out by behavior scientist Judy Rodin, before she became president of the University of Pennsylvania, showed experimentally that when people are provided popcorn while watching television, the amount they will grab and ingest is proportional to the distance the serving bowl is placed from their mouths. Rodin's conclusion: if you want to reduce the amount of snack food your kids nibble while sitting around, place the food source farther away from them.

Whether Brown's food providers knew of Rodin's findings as they began their campaign to reduce wastage is not known, at least to me, but the observation of critical behaviors and our use of that knowledge is what is important here. In order for appropriate measures to be taken to enable a sustainable future, we must accept the primacy of behavior in setting the course of our lives, individually and collectively.

Caring behavior keeps us a heartbeat away from death. That more young people die of behavioral misadventures than from all diseases combined is an indisputable fact.

Indeed, it is so for people up to age 33, according to U.S. Public Health Service statistics. Behavior kills. Eliminating non-caring behavior can save our lives.

The biggest killers of young people are accidents, suicide, and homicide, all three being the consequences of behavior. Many diseases and injuries are also caused by specifiable behaviors such as smoking and excessive use of alcohol, or from failures of life-preserving defensive behaviors.

Still, the importance of life-preserving behavior change is not understood or honored by everyone, and by most of us only some of the time. The *Brown Daily Herald* reported that an undergraduate student said of the onset of trayless meals: "I don't appreciate it because I always get more than one plate of food." Now, this is a behavior problem. Students usually have two arms, and some students are capable of carrying even three plates at once! As an undergraduate waiter, I carried as many as five, and the countermen at the New York System can carry a dozen or more hot dogs (with buns) on one arm. But I'm not here to serve derision to the hungry student, or to promote behavioral stunts in the refectory.

Another student said: "Students at Brown are always going to waste food. It doesn't matter if you have a tray or not." Now, this requires some deconstruction. All students? Which students? This student's reaction is distinctively psychological: If the student refuses to comply with the no-tray policy (and this is possible, for the trays are available), that's behavior which can be addressed. He may change his mind – and that's behavior, too. If 80% of the smokers quit smoking, isn't that a worthwhile advance even if 20% do not?

My fascination with the news about trayless dining comes quite naturally to me as a psychologist. I have spent my satisfying career in the field of child development – for reasons too expansive to detail here (but definitely of a psychological nature). My field of study is infant behavior and development, especially learning processes of babies. I had the idea early on in my work and published on it in the 1970s that when some babies die in the first few months of life, it may be because of a behavioral insufficiency. With rather considerable evidence of circumstance to support the supposition, I opined that babies who are inept in freeing their respiratory passages for breathing are especially at risk and either might be trained to do a better job of it, or could be brought up in an environment more conducive to safe breathing. Babies' lives could possibly be saved.

The hypothesis was not met with enthusiasm in pediatric circles, even though the diagnosis of sudden infant death syndrome (SIDS), or crib death, was a diagnosis of ignorance, which is to say that the medical examiner uses it as the default conclusion when no "cause" of death is found. That is still so. However, the National Institutes of Health now concludes that the rate of sudden infant death has been reduced by half through announcements cautioning parents and nurses to put babies to sleep on their backs, and not their abdomens. This simple behavioral intervention apparently reduced the crib death rate substantially. (SIDS does still remain the biggest killer of babies in the first year of life and, probably, could still benefit from intervention innovations.)

Turning babies to sleep on their backs is not very different from eliminating food trays in Brown's dining halls. If done everywhere, the savings could be huge. It is not so wild a dream to suppose that adoption of trayless meals and other thoughtful measures which help to sustain conditions for survival can help to spare lives.

We ignore behavioral considerations and psychological science at our children's peril.

Lewis P. Lipsitt is professor emeritus of psychology, medical science, and human development at Brown University. As former director of Brown's participation in the National Collaborative Perinatal Project, involving 4,000 births in the Brown cohort, he continues to collaborate in follow-up studies of these "babies," now in their forties.

Review of
Language, Truth and Logic
A. J. Ayer

Peter Wegner
Professor Emeritus of Computer Science

A. J. Ayer (1910-1989) was a noted philosopher whose book *Language, Truth and Logic* (1936) was widely accepted as a valuable analysis of philosophical truth. I attended Ayer's lectures in the early 1950s at University College, London, while pursing my undergraduate degree in mathematics at Imperial College. Ayer's daughter married a Brown professor, and Ayer gave some lectures at Brown in the 1980s while visiting his daughter. On rereading his book, I discovered some ideas about the notion of truth that relate to my own view that philosophical and political notions of "truth" are often less rigorous and more disruptive than we would like them to be.

After completing his thesis at Oxford under Gilbert Ryle in the late 1920s, Ayer spent a few years with the Vienna Definition Language philosophical group (VDL), and his elimination of metaphysics as a philosophical principle expresses the views of Schlick, Carnap, Wittgenstein, and other VDL members. He accepted the idea that empiricism is an important mechanism for validating Truth, but also agreed with Hume's assertion that empiricism cannot demonstrate the complete truth of any proposition, because assertions like "all swans are white" could always be falsified by a single example of a black swan, no matter how many white swans have been empirically discovered. Thus empirical assertion cannot be logically certain, but can be viewed as a hypothesis that is a probable though undemonstrable truth.

The focus of empiricism as a model of truth was challenged by Descartes, whose *cogito ergo sum* suggested that human thought was the definitive model of truth, and also by Kant, whose *Critique of Pure Reason* proposed that *a priori* human beliefs were a central measure of truth. Kant distinguished between analytic propositions like "all tall men are tall" (in which the predicate "tall" follows from the subject) and synthetic propositions (in which the predicate adds new facts that may be empirically tested).

Ayer suggests that the indubitable truths of mathematics and logic, such as "4 + 8 = 12," cannot be either analytic or synthetic as proposed by Kant, but are in fact tautologies. The assertion that 4 + 8 = 12 is true because 4 + 8 and 12 are equivalent tautologies, rather than distinct values whose equivalence must be proved, changes our view of the nature of mathematics. Our inability to recognize them as tautologies is due to the weakness (imperfection) of our human understanding. If our understanding were enlarged to include understanding of all tautologies there would be no need to prove their correctness, since we would know this without proof.

The view that mathematical and logical propositions are tautologies negates the view that mathematical theorems are new syntactic discoveries whose proofs contribute to our understanding of the world. Ayer shows that Kant's "Critique of Pure Reason" is

fundamentally flawed, and that the notion of truth in philosophy, mathematics, and politics should be substantially modified in order to be of practical use.

This account of Ayer's view of truth was presented at a discussion of the nature of mathematics arranged by Philip Davis of the Applied Mathematics department. The nature of "truth" in mathematics, philosophy, politics and other disciplines is still widely questioned. Your views on this subject are of interest and could be published in a future issue of the *Faculty Bulletin.*

A Sadder Side of Teaching

Peter D. Richardson
Professor of Engineering and Physiology

There are many joys in teaching but some sorrows too. Over time it is highly likely that some of our students predecease us, given the statistics embedded in the mortality tables and the numbers of students we teach. A central building on campus, Sayles Hall, was built in memory of a student who died far too soon, a generous gift which has been much used over the years. We have monuments to former students who died too soon through participation in famous wars. We have a system for awarding posthumous degrees for those students who die when they are on their home stretch towards graduation. But for those who die too soon from more scattered causes we seem not to have a focus in a specific place or at an annual time for recollection and reflection.

One of my early introductions to this sadder side of teaching at Brown was with a student who had a brain tumor. By rearranging his program for an ScB to one for an AB he experienced graduation with his classmates. The tumor was operated on, leaving him with a different gait and a doubtful prognosis. He chose to return to Brown to see if he could complete the courses he'd need to earn the ScB, it would take a year or so, and he came to my office to tell me he wanted the extra course he'd take with me to be as demanding on him as on his peers, not making it easy for him because of his illness, after all he hoped he could go on and work in the world, a bit at least, and his ScB needed to be as genuine as everyone else's. A gutsy guy. We shook on that, his Fall courses went well but before the academic year was over he had to go home and be nursed there in his final months.

Soon after him there was a grad student who completed a Master's with me, was married, and then was found to have a brain tumor, it was fatal; his young widow gave his books to the departmental library.

Subsequently two former students who were very close to their ScB's died in accidents, a man in a car with friends, the other a woman who had a climbing accident out West in the summer after graduation.

One Brown double-major undergraduate with an AB in Classical Archaeology and Latin, and an ScB in mechanical engineering of the Class of 1988, Danielle A. Parks, died in Canada July 31st, 2007, aged 41, after a plucky battle with leukemia. While she was an undergraduate at Brown she was not only in one of my courses but also a helpful informant on student concerns and activities to me when I was Chair of the FEC. Her Ph.D. studies at the University of Missouri took her to excavate in the Limassol District of Cyprus, and Professor Richard Dobbins (now emeritus) of Engineering and I received

frequent updates on her progress there, usually on postcards; she was awarded her MA in 1991 and her PhD in 1999, for which her advisor had been Kathleen Slane, and she had a post-doctoral year as a Visiting Assistant Professor at the University of Missouri before taking a position as Assistant Professor in the Department of Classics at Brock University in St Catharines, Ontario, being promoted to Associate Professor with tenure in 2004, the same year that her book "The Roman Coinage of Cyprus" was published, and Graduate Program Officer there in 2005. She was noted by many for her continued dedication to teaching and research, including throughout the more than two years of her illness.

In 2008 there was a student who'd been here three decades ago, whose career I had also been following, who became the most recent example for me of a former student who passed away too soon. Melissa Prince, as she was then, completed her ScB in 1977, and ScM with thesis in 1979, and died of cancer on April 14th, by then with the surname of Quisenberry, leaving a daughter and husband (see the Brown Alumni Magazine, Sept/Oct issue, pp.79 and 81). She was one of the early students in the biomedical engineering program here. She was from the Stamford-Greenwich CT area, one summer while she was an undergraduate student here her father had a serious heart attack and she took over the running of her father's business there, installing in-ground swimming pools, and her enjoyment of that led to her anticipation of a career in industry, although she did also contemplate taking a degree in medicine at one time. She was one of the students who enjoyed sharing with me the tales of life as they arose, even experiences typical of a RI winter - such as witnessing a three-car collision on Benefit Street, parking her car to find a phone to tell the police, and by the time she reached them they corrected her, it was a five-car accident - the driver of car #5 had come and pushed Melissa's car into the pile-up.

She was lead author of the paper:

Prince MA, Galletti PM, Panol G, Richardson PD. Chemically etched, microfibrillar polytetrafluoroethylene as a biomaterial. Proc 6th NorthEast Bioengineering Conf, pp. 313-316, Pergamon Press, March 1978

This study had included use of human umbilical-vein endothelial cells, and I recall her amused stories of waiting in a room at Womens' and Infants' Hospital in Providence with expectant fathers, she to obtain the umbilical cords, the men waiting to see their newborn children, the men silently puzzled why a young woman was among them. On leaving Brown she joined a Johnson & Johnson company to add to the development of a membrane blood oxygenator of a type originated by Brian Bellhouse of the University of Oxford, which incorporated flow pulsations to enhance gas transport in the blood-stream at the membrane. I believe after some time she moved over to Travenol, and designed and production-engineered a cardiotomy reservoir, also completed the FDA approval work for it - I recall running into her at a meeting in CA where she said it was on the company's stand at the associated Exhibition and "they're selling it". She had been readily accepted as a woman engineer, and was 'paying her dues' through varied experience with advancing responsibility. Next I recall her being associated with a non-invasive blood-oxygen detector, an advance such that malpractice insurers gave a discount to

anesthesiologists if they used it. Later still she obtained patents, and co-founded and was CEO of Alere Medical Inc, which provided an in-home monitoring system for daily checking of patients with serious cardiac problems, linked to medical centers where the results were monitored, and leading to significant savings by averting needless expensive hospitalizations yet keeping the patients checked daily, providing improved care as well as significant cost savings to insurers and used now in 26 states - which was acquired by Inverness Medical Innovations and generated approximately $77 M in 2007 revenues. More recently, she served as interim CEO of AllTranz LLC, a Lexington KY based MetaCyte portfolio company, developing dermal delivery products. It was while she was living in Kentucky that she died of cancer, leaving her husband, mother, a daughter and two brothers.

I had been trying to track updates on her career to be able to nominate her for the first Brown Engineering Alumni Medal for a woman graduate, but tracking her eluded me at a critical phase - for some time I had instinctively suspected she was suffering from cancer, and was sad to discover that was correct. Her career would make an interesting case study for those involved with entrepreneurship, as well as studying advancement of Brown women in modern industries.

My early years as a child living south of London during almost all of WW II led me to be very aware of persons dying too soon, and the problem of how to react to it. Sadly there were so many at that time, and I knew so little about them individually, just the girl with hair in ringlets at my kindergarten who was killed by a bomb one night, and my non-surviving relatives, all I could think of was trying to do some of the good they would have done had they lived, from both sides of the conflict. By itself, this fails to capture the stories of fortitude, courage and achievement in lives lived well, just too short - as, for the Brown community, could be derived and assembled about our students. Is there a specific place or an annual time suitable for such recollections?

FACULTY BULLETIN

INFORMATION FOR CONTRIBUTORS

GUIDELINES FOR SUBMITTING ARTICLES:

A second issue of the *Faculty Bulletin* will be published later this spring. Articles should be submitted by mid April for publication in May.

Please submit text electronically in Word format to:

Cheryl_Moreau@Brown.edu

Articles should be approximately 1,000 words (two to three pages). If space permits, longer papers will be considered.

Articles and/or questions should be directed to:

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