

LINKS:

Minority Research & Training

Seminar Examines Assumptions About Race

“I am here to challenge your thinking.” With those words, noted surgeon and cancer specialist Harold Freeman, M.D., began his talk, “Race and Racism in Science and Health,” delivered at the September meeting of the NIA’s National Advisory Council on Aging (NACA) in Bethesda, Maryland. “Race is a fundamental defining issue in this nation,” Freeman said. “Cultural and socio-economic differences between people have vast implications for disease outcome.”

Moderating the seminar was James S. Jackson, Ph.D., professor at the University of Michigan’s Institute for Social Research and member of the NACA. Jackson leads an NIA committee reviewing the Institute’s minority aging research program. Responding to Freeman’s talk was Raynard S. Kington, M.D., Ph.D., who directs the National Health and Nutrition Examination Survey at the National Center for Health Statistics (NCHS), part of the Centers for Disease Control and Prevention.

Freeman, who frequently speaks out on health-care, the tobacco industry, disparities in health outcomes related to poverty and race, and other

issues affecting the health and welfare of Americans, is President of North General Hospital and professor of clinical surgery at Columbia University in New York City. He also chairs the President’s Cancer Panel and is a past president of the American Cancer Society. Freeman is the co-author of a landmark paper entitled, “Excess Mortality in Harlem” (1990, *New England Journal of Medicine*). The study compared statistics from Harlem with death rates in the country of Bangladesh. Its shocking conclusion was that black males in Harlem have a lower chance of reaching age 65 than do Bangladeshi males.

Defining Elements

There are three elements, Freeman noted, that “have helped to define me as a person.” First, “I have lived half of my life in legalized segregation in Washington, D.C., and half in a country whose laws are fair. But the hearts and minds of people are not necessarily fair.” Second, of his decision to pursue a career as a surgeon in Harlem, Freeman said, “It was the best decision I ever made. I chose Harlem on purpose, to see if I could make a difference. My 32 years as a surgeon in Harlem have been a critical determinant of who I am.” Third, is the story of Freeman’s great, great grandfather, a slave in Raleigh,

(continued on page 3)

Jennifer Manly, Ph.D.: Outstanding Mentors Help Pave The Road To Success

Growing up in a supportive family of two professional parents helped Jennifer Manly, Ph.D., get off to a good start. Manly, a research neuropsychologist at Columbia University’s College of Physicians and Surgeons, is emphatic, “The people

who paved the way for me most certainly were my parents. They made sure I had every opportunity to succeed.”

Manly’s father, Col. James H. Manly, was a successful test pilot in the United States Air Force. Her mother, Myrna, a math teacher, published a book on how to take the math component of the Graduate Equivalency Examination

(continued on page 2)

IN
THIS
Issue

● Summer Institute
on Aging Research

Applications due
March 10, 2000

and edited the math portion of the exam. A military family, the Manly's crossed the country – with Jennifer going from elementary school in California to high school in Maryland.

She chose college at the University of California at Berkeley, where her interest in psychology was sparked. During Manly's second year she became fascinated with studies of the brain and human behavior. "Although I thought I wanted to major in pre-med, I decided to find a way to merge my biology training with psychology."

The next year, Manly worked as a research assistant for Dr. Joe L. Martinez, a psychology professor. She conducted experiments to test leu-enkephalin, a peptide that is released when people are excited or frightened. "Excitement improves memory about a situation," Manly said. "Just ask someone where they were when they learned President Kennedy was shot or when the space shuttle exploded."

Manly's interest in neuropsychology continued while working with Dr. Richard Levenson, a professor and researcher studying the psychophysiology of emotion. She helped conduct experiments on study participants' blood pressure and heart rate response to emotional stimuli. "I watched as many videos as I could to find clips that would illicit strong emotions in people," Manly recalled. She also studied ethnic psychology with Dr. Enrico Jones. "He showed me how race and culture affected behavior, stereotypes, and world view," Manly said with appreciation. "Dr. Jones inspired me to think about this in an academic setting."

Graduating in 1991 with a double major (a Bachelor of Arts in psychology and a Bachelor of Science in Integrative Biology), Manly reflected, "I decided I wasn't going to attend medical school. I saw the careers of people I was working with in psychology and I liked the paths they were on; what they were doing was more consistent with what I wanted in my life."

Relying on the advice of her college professors and advisors, Manly applied to the University of California at San Diego (UCSD)/San Diego State University, Joint Doctoral Program. She wanted to pursue a program that would allow her to conduct

research and see people in a clinical setting. During graduate school she was influenced by Dr. Igor Grant, a professor and vice-chair of the UCSD Department of Psychiatry. She worked with Grant on studies to determine whether cognitive ability in men with HIV affected the way they coped with stressful life events. "I began to carve

out a niche for myself by merging neuropsychology with stress and coping," Manly said.

While Manly was working on this project, she noted that traditional neuropsychological tests were not as accurate when used to diagnose cognitive impairment in the African-Americans in the study.

Working with Dr. S. Walden Miller, a research scientist studying neuropsychological test norms in African-Americans, Manly asked, "How can we best define the African-American population taking into consideration that there are many cultural differences within the group?" The question of measuring cultural factors within ethnic groups led Manly to her interest in acculturation. "African-Americans are very different with respect to cultural and educational experience," Manly said.

Manly credits Miller for keeping her on track during her dissertation. His excellent mentoring also led Manly to a Ford Foundation Fellowship. "The fellowship provided me with my own funding which gave me the freedom to choose my own dissertation topic," Manly commented. Her dissertation was entitled, "The Effect of African-American Acculturation on Neuropsychological Test Performance." She completed her graduate degree in clinical psychology with a specialty in neuropsychology in 1996.

As a part of her graduate training, Manly finished a Clinical Psychology Internship at Brown University in the Clinical Psychology Internship Training Consortium. "After that, I took a risk and

"Look for people who have succeeded in the sciences and those who have challenged the system and made it."

(continued on page 4)

North Carolina. His master, considered liberal by the standards of the day, allowed Freeman's great, great grandfather, a trained carpenter, to keep half of anything he earned after completing his slave duties. In 1838, he bought his freedom for \$3,000, and the name "Freeman" was quickly adopted to symbolize that hard won independence.

Poverty and Culture

Shifting his talk to the present day, Freeman said, "Poverty and culture are powerful social forces that determine the human condition."

One-third of African-Americans are poor, he pointed out, adding that poverty is a proxy for a complex series of negative social events. These include inadequate housing, unemployment, low levels of education, low access to healthcare, poor nutrition, and often a risk-promoting lifestyle. Poor people, he noted, tend to concentrate on day-to-day survival and often develop a sense of hopelessness and powerlessness. These and other factors have diminished their overall survival.

Culture, Freeman explained, is a gross variable for other elements of life. People of the same culture tend to have common ancestors; a shared communication system; similar physical and social environment; and similar values, beliefs, traditions, and world-views. These shared elements lead to a common lifestyle, attitude, and behavior. Freeman theorized that poverty acts through the prism of culture; this gives culture the potential to modify poverty's expected effects.

Freeman suggested that the disproportionate disease burden shared by black Americans is for the most part, an indication of the health consequences that befall a racial group which represents a substantial percentage of the poor and the unemployed but is only one-tenth of the population.

The Meaning of Race in Science

Freeman then challenged the audience to question the assumptions scientists make when using race in research studies. He raised several questions:

- Should race be used as a scientific variable in biological studies?
- How should multiracial identity be accounted for in scientific research?
- What assumptions do scientists make when they compare races and how do these assumptions influence scientific conclusions?
- To what extent do societal and institutional values related to race affect research or the selection of scientific problems considered worthy?
- How can race be applied validly to research studies?

Freeman quoted the University of California-based philosopher Sandra Harding, who maintains that "race is a relationship between groups which affects societal, institutional, and civilization values. This cultural framework is inside the natural sciences and creates biases that shape our approach to scientific investigation." He also referred to a statement issued in 1997 by the American Association of Physical Anthropologists. In that statement, the anthropologists assert for the first time that the biological concept of race is untenable.

Freeman noted that the racial categories used in the U.S. census are socially determined. "The history of racial classification cannot be disassociated from the history of racism."

Defining What Is Being Measured

Freeman makes the following recommendations for the use of race in biological scientific studies:

- Provide a definition of race as used in the study.
- Treat race as a variable.
- Distinguish among class, culture, and race.

"In using race in scientific studies, we need to clearly define what is being measured and for what purpose," Freeman said. "We need to distinguish fairness in access to participation in research from issues of valid research design. Moreover, the quest for truth in science must be conducted in the framework of social justice. Race is a powerful driving force in America, but the concept of race is related

(continued on page 4)

to how the dominant society sees and behaves toward various sub-populations, rather than who people really are.”

Borrowing words from the great theoretical physicist, Albert Einstein, Freeman closed his remarks by saying, “What you see depends on where you stand.”

A Sloppy Science?

In his response to Freeman’s lecture, Kington offered his understanding that race is generally used in science in one of two ways. The first is to help distinguish why some people are healthy and others are not. The second is as an action point for organizing, planning and developing interventions, or for disease surveillance. The bulk of criticism, Kington pointed out, is directed at the first.

According to Kington, many critics believe that race has no place in science because research studies that include the use of race are often designed with imprecision or sloppiness, or they involve arbitrary categorizations. “Although race is not at the core of understanding social and biological processes,” Kington added, “it remains a very powerful factor.”

Kington spoke of the difficulty identifying suitable alternatives to race. For example, “place” may involve an entirely different experience even for two neighbors who live side by side. Inequality is also a less than workable alternative. Kington pointed out that this is “another area fraught with challenge.”

Kington called for better tools and funding for scientists to allow them to do a better job. He maintains that there is plenty of room for creative thinking in the design of research studies.

“As long as race remains an important variable, we have to study it,” he said. He urged moving beyond simple descriptive statistics, adding, “The increase in complexity in race presents great opportunities.”

The lecture closed with a question and answer period where the audience had an opportunity to further discuss each speaker’s point of view. Freeman ended the discussion by quoting the author James Baldwin, “As long as you believe that you are white, I will have to believe that I am black.” ❖

Outstanding Mentors (continued from page 2)

applied for a postdoctoral fellowship at the G.H. Sergievsky Center at Columbia University College of Physicians and Surgeons,” Manly said. At Columbia University, she made contact with Drs. Yaakov Stern, Diane Jacobs, and Richard Mayeux, who were conducting a large study in aging and dementia. “They believed in my ideas about acculturation and supported my efforts to get funding to work with them,” Manly noted. “I wrote a proposal for a postdoctoral research supplement for underrepresented minorities, submitted it to NIA, and got funded.”

There are many reasons Manly believes having a good mentor is essential to young scientists. “A good mentor will help you with the nuts and bolts of getting you into a good graduate school,” Manly emphasized. “Look around for people who have succeeded in the sciences and those who have challenged the system and have made it.”

Still early in her career, Manly has strong connections with NIA. She participated in the Institute’s 1996 Technical Assistance Workshop. That same year she received an NIA Postdoctoral Research Supplement for Underrepresented Minorities. Currently, Manly is the principal investigator of a 5-year NIA grant project entitled, *Cognitive Test Performance of African-American Elders*. In addition, Manly is the principal investigator of two other studies funded by research grants from the Alzheimer’s Association and the New York City Council Speaker’s Fund for Biomedical Research.

Manly emphasizes making connections with other African-American scientists for support and camaraderie, “Feeling out of place may always be an issue, but it helps to make alliances with other African-American neuropsychologists,” Manly advised. “This has been a good strategy for me.” ❖

Some Older Black Women May Improve Their Treatment by Being Assertive

Being assertive when discussing possible breast cancer with a doctor may help older, poorer black women receive different diagnoses and treatment than they otherwise might have, according to research funded by the NIA at the New England Research Institutes (NERI) and several other institutions in Massachusetts.

In the past, most patients passively accepted their doctors' diagnoses and treatment recommendations without question. NIA grantee Dr. John B. McKinlay, Vice-President and Director, NERI, Watertown, MA, observed, "In the second half of the twentieth century, however, a number of factors have created a change in the nature of doctor-patient relationships." Because of the greater availability of medical information, changes in the health care system, and the rise of the medical consumerism movement, many patients now believe that they have the right to question their doctors' advice and even to get a second opinion.

Does race play a role in this changing doctor-patient relationship? Does race factor into the testing and treatment a physician recommends? McKinlay and his associates "found considerable differences based on race, age, and socioeconomic status in the diagnosis and treatment of patients. We hypothesized that older, black, less healthy patients would have more tests and more aggressive treatment recommended for them when acting assertively." They also thought that this assertiveness would influence less experienced doctors more than experienced ones.

Their results, published recently in *Social Science and Medicine* (Vol. 49, 1999, pp. 449-457), indicate that the effect of patient assertiveness on doctor behavior varies by the patient's characteristics.

It was most effective for patients who were older, black, and poorer.

Besides McKinlay, the investigators included Edward Krupat, Massachusetts College of Pharmacy and Health Sciences, Boston; Julie T. Irish and Linda E. Kasten, NERI; Karen M. Freund and Mark A. Moskowitz, Boston Medical Center; and Risa B. Burns, Beth Israel-Deaconess Medical Center, Boston. To test their theory these researchers randomly selected 128 white male physicians in eastern Massachusetts who had treated breast cancer patients during the previous 5 years. The doctors were divided into four groups of 32 based on whether they had practiced for more or less than 15 years and whether they were surgeons or non-surgeons.

"In the second half of the twentieth century a number of factors have created a change in the nature of doctor-patient relationships."

Thirty-two variations of a video were prepared, and a different variation was shown to each physician in each group. The videos presented a fictitious meeting between a doctor and an older "patient" who had a positive mammogram and biopsy and no evidence of metastases (stage IIA

disease). The standard therapy for this stage has not yet been defined by clinical studies.

The patient's characteristics varied by age, race, socioeconomic status, mobility, general health, and assertiveness and were combined to create 32 different characters who were enacted on the videos. The patients behaved in a similar manner except that the assertive patients made a short statement near the end of the interview: "Before we go any further, I have to say that I am very concerned about all this 'cancer' talk. I remember what my sister went through and if I really do have cancer, I want to know what can be done about it. I want you to tell me what all my options are because I'm willing to do whatever's needed to get this taken care of." After viewing a video, each physician was asked to describe the tests and treatments he or she would recommend.

Assertive patient behavior alone did not change the doctors' diagnosis or treatment recommendations. Instead, the doctors appeared to respond to this

(continued on page 6)

Possible Cultural Bias in Mini-Mental State Examination

Researchers at the University of Colorado School of Medicine in Denver found that a common screening test indicated an excess prevalence of cognitive impairment in participants who had less than 8 years of education and in Hispanic participants. The test, called the Mini-Mental State Examination or MMSE, is a common tool used by scientists and physicians to assess a person's mental status.

Drs. Richard F. Hamman, Christine Mulgrew, and colleagues at the University of Colorado Medical School's Department of Preventive Medicine conducted the study, which appeared in the *Journal of Gerontology: Psychological Sciences* (1999, Vol.54B, No.4, pp. 223-230).

"We found that the performance of Hispanic people on the MMSE, especially at younger ages, was worse than non-Hispanic white people," Hamman said. "This excess may be due to bias in the MMSE, since after we removed questions thought to contain bias, the differences vanished. This suggests that the MMSE, and perhaps other tests of cognitive function, should be carefully evaluated when used among U.S. minority groups."

In Hamman's study, over 1,300 participants age 60 or older were drawn from two counties in the San Luis Valley of southern Colorado. Hamman and his colleagues administered a Spanish-language version of the MMSE to the Hispanic study participants and found that individuals at older ages or with less education tend to have lower MMSE scores when compared to those who are younger or more educated. The scientists found that the number of Hispanic study participants categorized as having severe cognitive impairment was much higher than the number of non-Hispanic white persons. Similarly, the prevalence of cognitive impairment in those with less than 8 years of education was higher when compared with those more educated in both ethnic groups.

"It may be time to craft new measures which remove as much of cultural factors as possible, so they reflect true cognitive impairment," Hamman said.

The MMSE consists of a series of simple questions that help assess a person's orientation, attention, immediate and short-term recall, language, and the ability to follow simple verbal and written commands.

Hamman's research interests focus on chronic disease epidemiology, especially diabetes, cardiovascular disease, and aging in minority populations. Much of his work in this field was completed as an NIH-funded scientist at the University of Colorado School of Medicine. He is the author of over 100 scientific articles, many of which deal with personal risk factors for chronic disease that may affect Hispanic populations disproportionately. ❖

Some Older Black Women (continued from page 5)

approach when a particular type of patient demonstrated it. Such minimally assertive behavior from women who were older, poorer, black, and less healthy was perhaps less anticipated by the physician and seemed to prompt the ordering of more thorough testing for these patients. The length of time in practice of the physician did not affect their reaction to this assertive behavior.

Treatment recommendations following the declaration of doing "whatever's needed" included tamoxifen and surgery. The specific choice was definitely linked to the physician's specialty training. Non-surgeons suggested tamoxifen more than surgery, for example.

McKinlay and Dr. Sarah McGraw, both of NERI, along with Dr. Shelley Adler of the University of California, San Francisco, have looked at the question of whether assertiveness is culturally appropriate for different ethnic or racial groups. Their findings are presented in the *Journal of Aging Studies* (Vol. 12, 1998: 4, pp. 331-350). They have also examined the effect of patient attributes and assertiveness on physician recall and inference generation during the medical decision making process (*Medical Decision Making*, 1997: 17, pp. 199-07). ❖

Meeting with Rep. Jesse Jackson, Jr.



On May 6, 1999, Dr. Richard J. Hodes, NIA Director and Dr. J. Taylor Harden, NIA Assistant to the Director for Special Populations, visited with Representative Jesse Jackson, Jr. (D- IL), a new

member of the House Appropriations Subcommittee on the Departments of Labor, Health and Human Services, and Education. This subcommittee has jurisdiction over Congressional funding for the NIH. During the meeting Hodes highlighted the NIA's mission and discussed projected aging demographics and current advances in aging research. In addition, Hodes and Harden talked with Representative Jackson about the Institute's recent review of the minority aging research program. Jackson discussed behavioral research, specifically noting his interest in the role that environment and education (especially early education) may play in preventing cognitive decline in later life. ♦

Minority Aging Research Review—Where Do We Go From Here?

- What are the important aging research questions in minority populations and is NIA addressing them?
- What training mechanisms are most effective in developing minority investigators?
- What strategies might be used to encourage minorities to take fuller advantage of existing mechanisms?

These are the kinds of questions addressed by the NIA's Minority Aging Research Ad Hoc Review Committee. Established in 1998 by the National Advisory Council on Aging, this review committee is charged with evaluating NIA's activities related to minority aging from 1993 to 1998, and recommending future directions. Under the leadership of Dr. James S. Jackson, University of Michigan, the committee is examining how effectively NIA is attracting minorities to the field of aging research and how well the Institute's research programs are addressing the major issues and health concerns related to minority aging.

"This is the first time that any Institute at the National Institutes of Health has undertaken such a massive review of its minority health research portfolio. The NIA staff—both leadership and management—have been extremely helpful and cooperative," observed Jackson. He also complimented the committee members for their enormous contributions of time and perspective, "Each member of this committee is a well known researcher in the field of minority aging. The committee members represent a range of subject expertise — from basic cell biology to social science."

Dr. J. Taylor Harden, NIA Assistant to the Director for Special Populations, is "extremely pleased that NIA is providing leadership in systematically reviewing its institutional progress in minority aging research." She notes "the final report will be a landmark effort in analyzing and synthesizing what is known about minority aging. The twin forces of disease disparities and increasing numbers of older minorities are boosting interest and efforts in minority aging research. The NIA is committed to extending healthy, active years of life for all Americans through research. This review should help us to do a better job."

The committee's recommendations will be presented at the next National Advisory Council on Aging meeting, February 8-9, 2000. ♦

NIA's 2000 Summer Institute on Aging Research

Learn the Ropes from the Pros and Prepare for an Exciting Career

Do you want to get your career as a researcher off to the best possible start? How about spending a week in the country sharing ideas with both new and experienced researchers in your field and learning the nuts and bolts of writing and submitting winning proposals for NIA grants? Recent post-doctoral researchers are eligible to apply to participate in a valuable program that offers all of the above. The 2000 NIA Summer Institute on Aging Research, will be held at the Airlie Conference Center in Airlie, VA, July 8-14, 2000.

"The Summer Institute on Aging Research is one of NIA's premier training experiences," said Dr. J. Taylor Harden, NIA Assistant to the Director for Special Populations. "This program is unique because participants have direct access to NIA leaders including the Director, Deputy Director, Associate Directors, and staff from both the intramural and extramural programs."

Sponsored by the Brookdale Foundation and NIA, the annual week-long meeting is designed to stimulate new scientists' interest in research on aging. The Summer Institute also provides researchers with insights and contacts they can use throughout their careers.

Through a series of lectures, seminars, and small group discussions, participants learn about the issues and challenges in current research on aging.

Applications for the 2000 Summer Institute will be available in January with a due date of March 10, 2000. In addition to an application form potential participants must submit a 150-word or less description of personal objectives and provide two letters of recommendation, a recent resume, and a one-page research proposal abstract. For more information, contact Harden at 301-496-0765 or email: hardent@exmur.nia.nih.gov. ❖

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