

A New Force for Behavioral Science in Aging Research

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Lisbeth Nielsen

Good news for psychological science: In March, APS Fellow **Lisbeth Nielsen**, a top force for behavioral science at the National Institutes of Health (NIH), took over leadership of the Division of Behavioral and Social Research at the National Institute on Aging (NIA). As division director, Nielsen is responsible for overseeing a budget of nearly \$500 million supporting NIA's extramural research in the behavioral and social sciences—that is, the grants and contracts that NIA awards to the research community outside of NIH. Having Nielsen in this influential seat at NIA represents a positive development for psychological science and the behavioral and social sciences broadly. In an interview with APS, she discussed the history of NIA's behavioral division, shared her perceptions of important trending topics in aging research, and offered some advice for psychological scientists considering careers in government.

Aging—Unexpectedly

Nielsen's route to high-level government service and aging research began somewhat circuitously. As a graduate student at the University of Arizona in the 1990s, her research focused on the intersections of emotion, cognition, and psychophysiology, guided by APS Fellows **Al Kaszniak** and **John Allen** (University of Arizona), along with further training with neurologist Steve Rapcsak at the Tucson Veteran's Affairs hospital. She hadn't really considered her research to be on the topic of aging—but many of the experimental populations and control groups she was studying included older adults. "I was doing aging research without knowing it," she said.

The turning point came when she met APS Fellow **Laura Carstensen** (Stanford University), whose mentorship led to an aging-focused postdoctoral fellowship supported by NIA. Carstensen's extensive understanding of NIA funding provided a valuable early crash course in the institute and helped broker

important connections with NIA figures including Sidney Stahl, a social scientist who headed the institute's Individual Behavioral Processes Branch at the time. Stahl was looking for someone to take on a growing grant portfolio, and Nielsen was the person for the job.

"I had never really considered such a position," said Nielsen, noting that the speedy hiring process required a quick mindset adjustment. (See this article online for more of her thoughts on government jobs.) But in 2005, with Carstensen's encouragement, Nielsen was off to a career at NIA, leading to 15 years as a program director and then chief of the Individual Behavioral Processes Branch.

In her new role, Nielsen oversees the activities of this branch as well as the work of the Population and Social Processes Branch.

A Healthy Environment for the Science of Aging

Nielsen speaks highly of the longstanding behavioral science legacy at NIA, noting its recognition as a strong funder of basic behavioral science research as well as integrative, transdisciplinary research. When she arrived at the institute, her division was under the direction of psychological scientist Richard Suzman, known for his forward-thinking, creative vision and skill at getting people to work across disciplinary divides, including psychological science, economics, and demography. Under the leadership of Suzman and then social scientist John Haaga, Nielsen's immediate predecessor in her role, the division expanded its support of large, population-based surveys of the aging experience that were also rich in their psychological science inquiry. In a sense, the surveys merged the individual- and population-level processes characterized by the division's two branches.

"Population science has been deeply infused with psychological and biobehavioral content," said Nielsen, adding that these developments have generated new, important opportunities for psychological scientists to participate and contribute.

Strong leadership and supportive collaboration with colleagues like APS Fellow **Jeffrey Elias** (University of California, Davis), Jonathan King, and others enabled a behavioral and social science network collectively, she noted, furthering NIA's cognitive aging portfolio as well as its support for "noncognitive" areas such as personality and social psychological science.

"We've all been part of the effort to do this," she said.

A New Chapter for Behavioral Science

According to Nielsen, personality and social processes are among some of the most interesting areas in aging and life-span developmental research currently. Both have seen considerable transformations in the last decade, and now there's a growing dialog about the causal roles these processes might play in putting individuals and groups on healthier aging trajectories and improving later-life outcomes.

To these goals and more, Nielsen's advancement is well timed to help usher NIA into a new era of

behavioral and social science. An [external review](#) in late 2019 by the National Advisory Council on Aging (which advises NIA director Richard Hodes on the institute's functions) supports this notion, noting in its conclusions that committee members were "astonished at the breadth and complexity of the [behavioral and social research] portfolio.... [The division] has excelled in the past 5 years at developing its portfolio."

Further, many of the recommendations in the review align with what Nielsen and other NIA staff view as important priorities for NIA over the next 5 to 10 years. Three are especially significant, she said.

Advancing the "life-course" approach to aging. "Aging is a process, not a life stage," said Nielsen. While noting that individuals' aging trajectories are set sometimes very early in life, she plans to support research toward improving trajectories in midlife. Specifically, Nielsen hopes that NIA-funded research will improve scientific understanding of what is plastic or malleable in middle age, contributing to the understanding of the phenomenon of "midlife reversibility," or how to compensate for early adversities or redirect aging trajectories during this period.

Behavior change, using science to inform attempts to change both individual and organizational behavior to foster health and reduce disease. Nielsen believes an approach focused on the mechanisms of behavior change, and the interactions among those mechanisms, is key to furthering this science. "We're interested in all levers of change you can push," she said, underscoring the need to advance the rigor of this area.

The study of Alzheimer's disease and its related dementias, for which NIA has appropriated significant government funding over the last several years. Nielsen believes that the influx of dollars provides a significant opportunity to leverage psychological science and behavioral and social science generally to understand, alleviate, and prevent these diseases. She cautions, however, that strong federal support necessitates careful stewardship. "The responsibilities are substantial," she said.

Other elements of Nielsen's work at NIA offer further promise for advancing behavioral science research. For instance, NIA's coordination with other NIH institutes, including the National Institute on Minority Health and Health Disparities, focuses on an investigation of the social determinants of health. Indeed, the review of Nielsen's division called on NIA to examine causal factors behind the substantial health disparities in our society including stigma, bias, discrimination, racism, and inequity.

And the Science of Behavior Change (SOBC) Initiative has brought together people from across behavioral science institutes and along all stages of the basic to translational pipeline to apply a systematic approach to understand the mechanisms behind successful behavior change. "It's forced us all to learn how to speak each other's languages," reflected Nielsen. Breaking down silos within individual institutes is "transformative—it's a testament to what can happen when you bring scientists together and give them the space to change the field."

A Future for the Field

Nielsen thinks it's a fantastic time to be studying aging.

“The psychological science of aging over the last 15 years has been increasingly more biobehavioral and biosocial,” she said. “The intersection of pure behavioral science and all aspects of cognitive, affective, social, and decision neuroscience”—along with other fields integrating biological and psychological work—“are really transforming the opportunity for our fields to play important roles in the NIH agenda.”

Other transformations still make this time a key moment for psychological science, Nielsen added. Changes in open science, data sharing, and large-scale collaborations are exciting new directions, but they pose training challenges for both active scientists and future generations of researchers. Nielsen feels it’s her division’s job to foster these advances across NIA’s many stakeholders, noting the potential for research networks, summer institutes, and similar mechanisms to advance this training.

Learn more about NIA’s Division of Behavioral and Social Research at nia.nih.gov/research/dbsr.

Sidebar: Making a Career Out of Federal Science

Lis Nielsen encourages other psychological scientists to consider careers in government. “Think about applying for jobs at NIH,” but be aware that government work might require a different mindset and skills. For instance, working as an NIH program officer means putting one’s own research to the side to become a “behind-the-scenes sculptor” of the research programs of others.

“It’s no longer about *my* research program, *my* tenure-track position,” she said. Instead it’s about working behind the scenes to identify new research needs and gaps and creating opportunities for scientists to engage in discovery in those areas.

One of the things that keeps federal science work exciting, said Nielsen, is the transdisciplinary environment and the continuing education across so many different areas. “You never stop learning something new. You have access to findings across a range of fields coming across your desk on a daily basis... an opportunity to interact and collaborate with colleagues in other disciplines ... a chance to convene experts to provide insights on new directions in science, and hear the latest, most creative research.”

The scope is exciting, Nielsen added, and there are advantages to becoming more of a generalist than a specialist.

“If you’re excited about the idea of learning, seeing connections, finding creative ways to leverage connections to important areas, it’s a really fun place to work.”