

Mary Peterson: Cognitive Science Vision Statement

Our Cognitive Science (CogSci) Program was created in 1986 by legislative decision package within the College of Social and Behavioral Science. Its mission, as stated in the last APR, is to provide a vision for and to foster synergy among analytic, experimental, computational and neuroscientific approaches to the study of cognitive systems. During its 24-year existence, the CogSci program has developed a strong national and international reputation. We are a vibrant community that values collaboration and intellectual exchange across traditional departments and programs, including: Anthropology, Computer Science, ECE, EEB, Linguistics, MIS, Management and Organization, Neuroscience, Philosophy, Psychology, SLAT, and Speech, Language, and Hearing Sciences. The faculty and students in the CogSci program meet weekly to hear scholars from a variety of disciplines; this activity fosters continued exchange and cross-fertilization. In 2009, CogSci became a founding member of the School of Mind, Brain, and Behavior (MBB) within the College of Science (CoS). As a consequence of moving to a new college, we are facing new challenges and new opportunities.

One challenge is to maintain our close intellectual ties with departments and faculty in other colleges, especially with Philosophy, Linguistics, and with our decision-making colleagues in Eller. If chosen as the next CogSci Director, I will continue to use CogSci FTE to seed faculty positions that will strengthen CogSci in affiliated colleges. I will also continue to support those activities that currently stimulate intellectual exchange, such as the Friday noon colloquia and the Master Seminar. I will also assist in funding interdisciplinary workshops whenever possible. These activities stimulate our community through exposure to state-of-the-art research at other universities. In addition, I will try to increase our frequency of hearing from and talking to each other. To that end I plan to (a) institute a CogSci "conclave," to be held at the Tucson Botanical Gardens once per semester where short research presentations would be given by a mix of students, post-docs, and faculty, followed by a buffet dinner (modeled on the neuroscience data blitz); and (b) hold social gatherings for some visiting speakers rather than small dinners. These activities will nurture and build our interdisciplinary community, stimulate the exchange of ideas and energize new collaborative research. In addition, I will encourage continued interaction with the School of Information, Science, Technology, and the Arts, which promotes computational thinking across disciplines, thereby offering a tremendous resource to CogSci.

The move to the CoS provides CogSci with the opportunity to interact closely with colleagues in MBB. Cognitive neuroscience provides a natural bridge between Neuroscience and CogSci. I plan to build additional bridges for communicating and collaborating with our colleagues in MBB and the CoS at large. To increase understanding of CogSci in the CoS, I will institute a news feed on our web site with the aim of including CogSci news in future CoS news bulletins and publications. I will also work with associate dean Elliot Cheu's office to design outreach activities appropriate for CogSci, such as Science Café presentations or interactive Flandreau exhibits on CogSci topics. Finally, our membership in MBB provides us with the opportunity to participate in the new undergraduate major in Neuroscience and Cognitive Science (NSCS). The initial design of the NSCS major did not include enough CogSci content. I plan to work actively with (1) CogSci faculty to design appropriate courses, (2) heads of departments affiliated with CogSci to find the means to staff more CogSci courses for the NSCS major, and (3) Lynne Oland and other MBB faculty engaged in designing this timely and exciting major.

To maintain and even increase student participation in our intellectual community I will continue the practices of funding conference travel and having an annual competition for graduate fellowships. I also plan to institute awards for "Best Paper of the Year" and "Best Alumna/us of the Year;" the latter provides a way to reach out to our alumni. One goal of these awards is to encourage our students to excel; another goal is to help them move upward in the academic community. Finally, I plan to form a working advisory board to help CogSci with fundraising. Any funds we can bring in will be used to strengthen our intellectual community, e.g., by bringing in visiting scholars or by supporting interdisciplinary research.

My research touches on fundamental cognitive science issues such as perception, memory, learning, representation, consciousness, and cognitive architecture. My interest in these issues has allowed me to forge strong links with my colleagues in traditional CogSci departments. I value the interdisciplinary nature of our CogSci community and as your Director would be a forceful advocate for it.