

## Catherine P. Browman 1945-2008

Catherine Phebe Browman, one of the pioneers in the field of Laboratory Phonology, died Friday July 18. She struggled for 21 years with MS, and died very peacefully at home, surrounded by her long-time partner, Louis Goldstein, and all the dedicated, loving caregivers who made it possible to live out her life in the beauty and peace of her home.

Cathe is best known for her ground-breaking work with Goldstein on Articulatory Phonology. This work, developed at Haskins Laboratories in the mid-1980s, attempted to integrate phonological representation with novel work on dynamics and motor control inspired by Carol Fowler, Katherine Harris, Scott Kelso, Betty Tuller, and Michael Turvey, and crystallized in the task-dynamics model of Elliot Saltzman. In her work with Goldstein, abstract vocal tract gestures are hypothesized to be the fundamental units of phonological knowledge, speech production, and speech perception.

Cathe was born in Missoula, MT. Her father, Ludwig Browman, was a zoologist on the faculty of the University of Montana. Her mother, Audra Arnold Browman, was a PhD in biochemistry and became one of the leading historians of the Missoula area. She grew up the youngest of three siblings, all of whom are surviving: Andrew Browman of Los Alamos, NM, Audra Adelberger of Seattle, WA, and David Browman of St. Louis, MO.

After receiving a BA in mathematics from the University of Montana in 1967, Cathe went to work at Bell Telephone Laboratories in New Jersey, as a programmer and then Associate Member of Technical Staff in the Acoustics Research Department. In this capacity, she began to work with Cecil Coker and Noriko Umeda and was a major contributor to that group's novel articulatory text-to-speech system, which first appeared in the literature around 1972.

Inspired by this work in speech, she decided to go to graduate school at UCLA and study with Peter Ladefoged, beginning in 1972. There she was part of the very fertile phonetics lab group with people such as Ron Carlson, Sandra Disner, Vicki Fromkin, Jack Gandour, Louis Goldstein, Steve Greenberg, Richard Harshman, Leon Jacobson, Jean-Marie

Hombert, Hector Javkin, Mona Lindau, Ian Maddieson, George Papcun, Lloyd Rice, Diana van Lancker, and Eric Zee.

Following her PhD in linguistics in 1978, she went back to Bell Labs, where she was a post-doc with Osamu Fujimura and developed Lingua, a new demi-syllable based text-to-speech system. After two years teaching in the Linguistics Department at NYU, she arrived at Haskins in 1984, where she was to produce her major work, developing the Articulatory Phonology theory and its associated computational simulation with Goldstein, Saltzman, Philip Rubin, and others.

Cathe had several passions outside of linguistics. The two strongest were hiking, particularly in Montana and in the Southwest, and dance. In the late 1980's, she taught and led the Dances of Universal Peace in New Jersey and then Connecticut. These Sufi dances crystallized her commitment to group interaction and (non-denominational) community spirituality. It is one of the several tragedies of her life that these two main passions were not available to her when she became non-ambulatory, starting about 1995.

Cathe was a person of enormous determination and spirit. When she was diagnosed with MS in 1987, she refused to tell anyone except for close friends and family, as she did not want it to interfere with the pursuit of her work and her passions. Knowledge did not begin to become public until the Laboratory Phonology meeting in Oxford in 1993. Her speech, which ironically was one of the earliest motor systems affected by the disease, disintegrated during her commentary at that meeting, much to the shock and dismay of her friends and colleagues. This was the last talk she was to present. She did nevertheless continue working, with increasing difficulty, from home. Determined as ever, she worked out clever strategies for sliding from bed to her computer, so she could, with failing eyesight, work on grant proposals. In a final act of determination, she attended the wedding of the daughter of a childhood friend in November of 2006. Though she had not been out of bed for any reason in at least two years, she made the 8 hour (each way) trip in a wheelchair in the back of a van, stayed two nights in a hotel, and attended the wedding and the entire reception.

Although Cathe did not have PhD students of her own, because she did not hold an academic position while at Haskins, there are many Haskins students who worked closely with her and were influenced by her. These include: Suzanne Boyce, Rena Krakow, Andre Cooper, Mark Tiede, Caroline Smith, Simon Levy, Joaquin Romero, Betty Kollia, Lisa Zsiga, Qi Wang, and Doug Honorof. She was also a major influence on post-docs Diamandis Gafos and Dani Byrd. During her last, brief hospital stay in late June 2008, she was visited by a group of five current Haskins students and recent PhDs who had never had the opportunity of working with her. Since Cathe's caregivers were absent from the room at that moment, the other patient in the room asked: "So do you all work for her, too?" One of the group, not missing a beat, answered, "No. We are all her students."

There will be no memorial service. Instead, Diamandis Gafos and Louis Goldstein have over the last month begun to plan an Articulatory Phonology conference in her honor and memory to be held on the Greek island of Chios, in summer of 2010.

There is a web site for those who want to contribute words and/or pictures about Cathe and her life and work

(<http://www.haskins.yale.edu/browman.html>). Those wishing to make a gesture of remembrance can make a contribution to the Cathe Browman Memorial at the CT Chapter of the National MS Society ([http://main.nationalmssociety.org/site/TR/Events/CTNChapter?pg=fund&fr\\_id=7373&px=5304464](http://main.nationalmssociety.org/site/TR/Events/CTNChapter?pg=fund&fr_id=7373&px=5304464)) or to the Cathe Browman Fund for Exploration at Haskins Laboratories (<http://www.haskins.yale.edu/browman.html>).