

BERKELEY EMERITI TIMES

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EMERITI LUNCH: JANUARY 25TH



Silvia Bunge

How We Learn to Reason: Brain Development and Plasticity

Those of us who enjoyed John Prausnitz's December talk are in for a pleasant surprise with Silvia Bunge's presentation on January 25th. Professor Bunge exemplifies all the desirable qualities that Professor Prausnitz called for in his talk (of which a summary is presented below). She epitomizes in her own life and in her research the kinds of crossing of boundaries within and between disciplines that are now being recognized as essential to good research and teaching.

Born in Montreal of Argentinian parents who had lived and worked in the United States and Europe before moving to Canada, she is the daughter of a professor of the philosophy of science (who started out as a professor of physics) and a professor of mathematics, both at McGill University. A good start for an interdisciplinary career! Her undergraduate degree at Yale was in the Biology department (with a concentration in psycho-biology). Her main interest was already in neuroscience, in which she earned a Ph.D. at Stanford. She first joined the University of California faculty when she was appointed to the Davis campus some ten years ago.

She came to Berkeley in 2007. Berkeley wanted her, but where to put her? She came on a joint hire, 50% Psychology and 50% Helen Wills Neuroscience Institute. In the Psychology department she has already served as vice-chair for two years and is now head graduate adviser, a post she delights in since she loves mentoring students.

Her research specialty is the quickly growing field of developmental cognitive neuroscience – especially as it may be applied in the field of education. This is such a new discipline that the undergraduate class she teaches on the development of the brain has no textbooks to turn to – so she has the students write their own!

She also runs here at Berkeley the Bunge Laboratory on Building Blocks of Cognition, a research group with one full-time researcher (with his Ph.D. in computer science), along with a post-doc from Psychology and several graduate students (one in Education and three in Psychology). The group is currently looking for another graduate student – in neuroscience.

This April Silvia will be running a symposium, to be held in Boston, on applications of developmental cognitive neuroscience. The field is now catching fire with a wide range of communities – from law to public health to education.

December Lunch with John Prausnitz – Emeritus of the Year Award and Talk on the Challenge of Post- modernism to Undergraduate Education

The members of the Emeriti Association who attended the Emeriti Lunch on December 7th were there in double kind: they honored John Prausnitz, the 2013 Emeritus of the Year, and were treated to a fascinating talk on the nature of post-modernism, its distinction from modernism, and its manifestation in modes of human behavior and creativity ranging from fine arts to technology – and between them!

Past President of the Association, Ed Epstein, began the proceedings by outlining some of John's distinctions over his many years of service to scholarship, technology, and the University – as well as his continuing work, especially with respect to the form of undergraduate education. Current President Caroline Kane then made the formal presentation of the certificate recording this high honor – to take its place among the many, many others he has accumulated over the years!

John first demonstrated the fundamental differences between what we have termed modernism and what we now see as an increasing turn to post-modernism: while modernism stresses determinacy, fixed states of knowledge and their meaning, post-modernism admits the value and real possibility of indeterminacy; modernism stresses structural design, while post-modernism considers, uses, and appreciates, the surface; modernism works towards centering and post-modernism towards dispersal. We are seeing a move away from strict rationalism that may be analogous to the 19th century reaction of the Romantic Movement to the industrial revolution. An initial result? A shifting in interpretation of what has come before. Thus every such shift is its own age's post-modernism.

John has a particular interest in the arts and music. During the course of his presentation he illustrated the differences he cited with examples from art and architecture – even movies! The structure vs. skin change showed clearly in the contrast between a rigid LeCorbusier building and the new Guggenheim Museum in Bilbao, with its individuality and even humor.

And interpretation? Boundaries can be fuzzy and diffuse as age succeeds age. The clothed woman in Titian's "Sacred and Profane Art" was seen as "sacred" but now



is mostly described by viewers as "unhappy," while the figure on the right, the goddess, has become the "sacred" one rather than a naughty, profane nude.

In the context of the University we see modernism in the careful structure of departments, each with its own standards of excellence in a carefully bounded discipline. Until comparatively recently, faculty members, while to large degree liberal in political and social views, have been very conservative when faced by any suggestion that the walls between their departments and others should become more permeable, with more interdisciplinary courses, especially at the undergraduate level.

True, at the graduate level, a stringent training in the methods and standards of one's chosen discipline is needed, but students need to reach this stage of their career with an early training in the relevance, context, and possibilities for integration of what they are learning. Yes, interdisciplinary courses are doing this more and more. But the faculty members offering such courses need to be more diverse. Very few pure scientists and technologists participate in these courses. Students need to see the crossovers from aesthetics to philosophy to biology to mathematics. John asserted that if you can't explain thermo-dynamics so that your grandmother can understand it, you don't truly understand it.

In the search for knowledge and understanding, we need to see that, although we need to study leaves and trees, we should always keep in mind that all together they constitute a forest.

John ended his talk with an anecdote about Niels Bohr. A scientist friend made fun of him for having a horseshoe above the door of his work place. Bohr's response? "I've heard it can bring good luck even if you don't believe in it!"

Maybe scientists and technologists can join camps with humanists, artists, and social scientists as we try to work towards a happier future?

SHORT TAKES: Emeriti Lunch Table, 2nd and 4th Thursdays monthly at noon in the northwest corner of The Great Room in The Faculty Club. All are welcome to join in our informal discussions!

PRESIDENT'S LETTER

Happy New Year to all!

We look forward to seeing you at our January 25th lunch featuring Professor Silvia Bunge speaking to us about the new field of developmental cognitive neuroscience, a topic reflected in this issue of the *Times* with John Swartzberg's article about measures we can take to stave off cognitive deterioration as we age.

We welcome all new Emeriti retirees to this lunch as well, compliments of the Emeriti Association for your first event with us. Our Thursday informal lunches have also begun again, with the first for the new year on January 23rd at noon in the Faculty Club Great Hall, and continuing on the 2nd and 4th Thursdays of each month. Stay tuned to hear about our work on the UCB Center for Transforming Retirement, and soon you will also hear about collaborative activities with the California Alumni Association.

Best wishes for a happy and healthy start to the year.



Caroline M. Kane, President

RETIREMENT CENTER UPDATE

At the biennial retiree conference on May 15, 2014, Jennifer Granholm, UC Berkeley Distinguished Practitioner of Law and Public Policy and Michigan's 47th governor from 2003 to 2011, will present the keynote address: *Cracking the Code: Creating Good Jobs in America in a Global Economy*. She will consider the following questions: "Are we in a 'new normal' of higher unemployment and wide income gaps? Can we do something about it? What should be the role of government in solving the jobs crisis?" As governor of the state with the toughest economy in the nation, facing bankruptcies in the auto industry and the loss of manufacturing jobs, Granholm has grappled with these problems and brings a unique perspective to possible solutions.

The spring issue of the Center newsletter, *the CenterPiece*, will provide more information about

registration and the conference workshops on topics like memory, creativity, and technology.

Volunteer Fair

On February 20, from 10am to noon, the Center and Coming of Age: Bay Area will offer a Volunteer Fair in the Toll Room of Alumni House. This free event will allow you to explore volunteer opportunities with key community organizations and select campus departments, e.g., Botanical Garden and Berkeley Art Museum.

Fidelity Investments – Confidential Appointments

The Center will again offer the opportunity for one-on-one confidential consultations with a Fidelity Planning and Guidance Consultant to make the most of your UC Retirement Savings Program. Consultants will help you to establish a plan that includes an annual review of your portfolio and professional guidance on investments and goal planning. For schedules and registration information see the Center's spring newsletter.

You are always welcome in our offices. We are conveniently located at 1925 Walnut St. in Berkeley.

Be well!



Patrick C. Cullinane, Director

SHORT TAKES: Berkeley's Emeriti brought in over \$250 million worth of research funds between 2009 and 2012, and they produced over 4500 scholarly works in their disciplines in that timeframe

**UC BERKELEY EMERITI ASSOCIATION
2013-2014**

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Can anything we do stave off the onset of dementia? – John Swartzberg

Dementia rates have dropped by more than 20 percent during the past two decades, according to a study done in the UK and published in *The Lancet* in July 2013. The authors attributed this to good control of blood pressure and cholesterol – and possibly to education. U.S. experts expect the same trend is occurring here.

The question I'm most often asked on this topic is: Can supplements improve my memory? Many dietary supplements are marketed to improve memory: various herbs (notably ginkgo), vitamins, fish oil, and countless cocktails of herbs and other ingredients (such as Focus Factor, BrainReload, and Brain Alert) come with claims that they aid memory and mental ability. All, with the possible exception of fish oil supplements, have little or no basis for such claims.

Fish has long been called a brain food, and it's been theorized that the omega-3 fats in fish oil help brain function. Some studies suggest that fish oil supplements help slow cognitive decline in healthy people, but others don't. A 2012 review of three large studies found that omega-3 supplements, taken for 6 to 40 months, did not improve cognition, memory, or verbal skills in older people without dementia. Longer studies may still find benefits, the reviewers suggested, and fish itself may have benefits the capsules don't have. If you eat fatty fish such as salmon, you don't need fish oil supplements, unless you have cardiovascular disease or high triglycerides and are taking them on a physician's advice. It's far from clear that fish oil (from fish or supplements) will help your memory, but what helps your cardiovascular system may well benefit your brain.

Here's my advice about what you can do: Exercise your brain by learning something new and playing games that require concentration or analytic thinking. Physical exercise and staying socially connected also help maintain brain health.

Perhaps most important: check your blood pressure regularly. If it's high, follow medical advice for bringing it under control. Uncontrolled high blood pressure is a risk factor for dementia. Avoiding or controlling diabetes is also important, as is weight control, since obesity (especially in the abdomen) has been linked to an increased risk of dementia.

EMERITI TIMES: Published before each meeting of the UC Berkeley Emeriti Association to give members information about meetings, Board actions, and pertinent campus news and policies, along with interviews and items of general interest. In this way we reach out to members unable to attend the meetings. Editor-writer: Phyllis Brooks Schafer.

UC Berkeley Emeriti Association Luncheon

Saturday, January 25th, 2014

Social Hour at 11:00 a.m. – Luncheon at noon – Speaker at 1:00 p.m.

The Faculty Club

Silvia Bunge

Associate Professor of Psychology

*How We Learn to
Reason: Brain
Development and
Plasticity*

To guarantee your luncheon choice, your reservation must be received three days prior to the event. All entrée options are \$18. Payment can be made by faxing this form to 510/540-6204 [indicate Faculty Club Account # _____ to charge], or by mailing this form [with a check made payable to The Faculty Club] to the UCB Emeriti Association, The Faculty Club #6050, Berkeley, CA 94720-6050. For more information, call the Faculty Club at 510/540-5678 x2-224.

<i>Please fill in attendee(s):</i>	<i>Please indicate a preferred entree for each registrant:</i>
Member Name:	<input type="checkbox"/> Luncheon Salad <input type="checkbox"/> Regular Entrée <input type="checkbox"/> Pasta
Spouse/Partner/Guest Name:	<input type="checkbox"/> Luncheon Salad <input type="checkbox"/> Regular Entrée <input type="checkbox"/> Pasta
Guest Name:	<input type="checkbox"/> Luncheon Salad <input type="checkbox"/> Regular Entrée <input type="checkbox"/> Pasta