



SEARCHING BRAINS AND FINDING
HEARTS: “DINING IN” AT WIKO
SRINIVAS NARAYANAN

Professor Srin Narayanan leads the strongly interdisciplinary ICSI AI group comprising of computer scientists, linguists, and neuroscientists studying language and cognition. He is a core faculty member in the Cognitive Science Program at the University of California, Berkeley and is a faculty affiliate with the Institute of Brain and Cognitive Sciences. His current research interests include computational neuroscience, computational biology, information technology for emerging regions, and models of complex adaptive systems functioning in dynamic environments. Professor Narayanan obtained his Ph.D. in Computer Science from the University of California, Berkeley where his dissertation was nominated for the David Sakrisson award for the best Berkeley EECS dissertation for 1997. He helped establish the Berkeley Neural Theory of Language group, whose goal is to build biologically plausible computational models of language learning and use. He is the recipient of numerous awards including the David Marr distinguished paper award, and a Google Faculty Research Award. – Address: International Computer Science Institute (ICSI), University of California at Berkeley, 1947 Center Street, Berkeley, CA 94704, USA. E-mail: snarayan@icsi.berkeley.edu; <http://www.icsi.berkeley.edu/~snarayan>

As a faculty member at Berkeley and at the International Computer Science Institute (ICSI), I have had the pleasure of welcoming and working closely with many international researchers and have sometimes wondered what it is like from the viewpoint of a visitor. Now I have a better perspective. For the first time in a decade, I was away from Berkeley visiting the Wissenschaftskolleg (Wiko) in Berlin as a resident Fellow.

I had not visited Berlin before, did not speak German except for a few rudimentary phrases, and was in all respects even less prepared for the transition than several of our European visitors to Berkeley. The administrative staff at the Wiko managed to make the move completely smooth. They arranged for the residence permit (you need one for stays of over three months), a great apartment, office space, computers and supplies and even gave us invaluable tips on moving around and getting basic things done (like opening a bank account, groceries). All this could have been quite onerous, and the seamless ease with which this happened made me appreciate the great service the Wiko staff provides to the international visitors every year.

Berlin is an interesting and culturally rich city with great museums, nightlife and real seasons (read: cold and grey winters). My experience and appreciation of Western classical opera and musical concerts have benefited immensely even in the few months I have been here. As elsewhere in Europe, the ease with which one can use public transportation to explore this fairly large city and its surroundings is refreshing. The service economy, innovative green technologies and cosmopolitan nature of Berlin bear some similarities to the Bay Area. Having grown up in two cultures, I never expected that I could be part of yet another with a different language, but the friendly, young, vibrant and culturally interesting city of Berlin is easy to love and managed to draw me in right away. I even miss those adventurous excursions to clubs in Mitte, Kreuzberg and Neukölln. Indeed, once we clone some of the Indian restaurants from the Bay Area, we could have a perfect city.

My research goal at Wiko was to consolidate and write up several years of work within the Neural Theory of Language (NTL) project (<http://www.icsi.berkeley.edu/NTL>) on neurally plausible computational models of cognitive phenomena. The intellectually heterogeneous atmosphere has been very instructive and has resulted in critical examination of past work as well as new problems to contemplate. In consolidating research within NTL, I managed to catch up on my backlog of readings, especially pertaining to the experimental techniques (such as functional Magnetic Resonance Imaging (fMRI) and Transcranial Magnetic Stimulation (TMS)) used in our own work within NTL and in the wider context of cognitive neuroscience. This has resulted in an idea for a new experimental approach designed to move from the one-off studies that currently constitute the state of the field to a more predictive model that compares model-based predicted fMRI results to actual fMRI images in test data.

One stated purpose of the fellowship at Wiko is to gently nudge people out of their comfort zones with new questions and seemingly random perturbations that cross disci-

plinary boundaries and can potentially kick them out of a local minima (ok, I admit that I am a geek). This happened to me both professionally and personally. An example of an early derailment to my carefully laid plans involves fellow Fellow Robert Trivers, who has succeeded in getting me thinking about self-deception and its connection to the evolution of deception, framing and metaphor. Numerous conversations within my group “Understanding the Brain”, artfully assembled and coordinated by Holk Cruse, both challenged and enriched my prior conceptions and have contributed at least partly to three papers that report new results in causal learning, metaphor acquisition and fMRI data analysis.

But it was the interaction outside the group that was really unique. The pace here is much gentler than at Berkeley, the conversations longer with emphasis placed on developing collaborations and entertaining perspectives from scholars in diverse disciplines (history, biology, literature, philosophy, law, art, music) who are often drinking wine during this interaction.* The Tuesday seminars provided an early focus for extended discussions that lasted through the week. The range of topics and the unfailing efforts of the presenters to reach an informed non-expert audience were laudable and refreshing. As always in serious interdisciplinary engagements, I was sometimes confronted with a concept that could take me at least several years to plough through. One particularly salient example was a reply to my question whether specific named individuals were part of the community that was the topic of discussion at the seminar. “In the humanities, we don’t provide yes or no answers; only new, more nuanced ways to formulate the question.” I continue to actively ponder this reply though I have no clear breakthrough to report yet.

In principle, one can tap the vast resources at Berkeley (or a similar place) to achieve this remarkable degree of interdisciplinarity and spirit of engagement. But to make it happen requires the foresight, commitment, careful attention to group dynamics and sheer legwork that needs to be done to select and assemble such a diverse set of participants. In this respect, the Wiko experience is unparalleled. I am still awestruck at how so many complex egos from multiple cultures and disciplines with all their demands and requirements can be so carefully nurtured, where a spirit of collaboration appears to be the natural default, like a spontaneous outgrowth of our collective interests. The only

* I started with drinking coffee as a counter-strategy but my fellow Fellows now report an alarming increase both in my use of expressions like “a fruity flavor with a hint of oak” and in my enthusiastic participation in the entailed situational contexts.

reason I know that such a fine balance and synthesis is possible is that somehow the Wiko manages to do it year after year.

My students and colleagues from Berkeley often had that charitably sceptical look (like trying to politely disengage from an obtuse and failing joke attempt) when I told them that the Wiko lunches and Thursday dinners were important events in my life and an intense learning experience (and I do mean in addition to my oenological internship). Then I invited some of these doubters as my guests to the Wiko. Within a day of their exposure to the Wiko culture, they started to prepare for the events, selecting people they wanted to talk to, crystallizing the ideas they wanted to explore and then staying late after the food was over in animated discussion and planning future collaborations. And after that, some stayed even later for ping-pong.

Now I tell my friends that Wiko lunches sometimes set in motion processes that change lives. I also tell them that I know this because I was part of one such lunch.