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Memories: Albert Costa's legacy

It was 2002, when I was a Bachelor student at the Department of Psychology and Albert was coming back from his post-doc stage in the States. After Albert landed in the department, nobody wanted to present her work in the weekly meetings ... guess why? ... from slide 2 (sometimes 1), he started showing clear symptoms of impatience, moving nervously his chair to finally utter: "mmm ... where are we going?" And Núria wanted me to show him the results of an experiment. At that moment I thought, why is she doing this to me? What an incredible gift, Núria. Since then, I had the opportunity to meet not only the scientist, but also the person, and I do not know which one I admired more. Albert was gifted for science, a clever and insatiable mind; always asking new experimental questions and, thinking in incredible ways to solve them. He was interested in language, in its broader sense, in exploring the "phenomenon", in providing answers to his "mother". Working with him was a continuous challenge. He was very critical with the data, the way we were presenting it or even with our plots (everybody remembers the classic: "this is a very unfortunate graph"). It is funny, how much we hated these sentences and how much we missed them now. Because Albert was much more than a mentor, a colleague or a boss for us. He was a friend, family. An enormous and generous heart, always caring about us, about our personal issues, trying always to help. What kind of mentor appears in the hospital to meet your baby few hours after being born? Obviously, you, the man and the scientist. Thank you, Albert, for all the lessons, the scientific and the life ones.

Your legacy will live on forever in the lives and hearts of those you touched.

Cristina Baus.

Albert's undergraduate student and post-doc.

I met Albert in 2009 when I had an interview for a postdoc fellowship in his lab. He ended up hiring me without giving any expectation and I was so grateful to have the chance to work with him. In our first meeting, I remember he asked me a question that surprised me: 'People say that research in dementia is a mess ... why do you want to add more noise to it by studying language in bilingual patients?' And with that question began the challenge that lasted for the rest of our 10 years of collaboration. I constantly tried to convince him that doing research focusing on bilingual patients with neurodegenerative diseases is possible and even useful. I am not sure that I ever fully convinced him, but he was so kind to allow me this research 'space' in his lab. Beyond these first memories of Albert, I like to remember his enormous merits and the lessons he taught me. His unforgettable 'So, what?' after any research idea or hypothesis that I wanted to explore motivated me to look beyond the research questions. His persistent 'Are people interested in this?' helped me to think about the impact of our research, from bench to lab to community. His 'We can do better!' was a nudge to persist and to go more in depth in our answers.

We all know how creative and brilliant Albert was in the world of science with his direct questions at just the right moment, but I would like to remember him as much more than that. He was one of most altruistic people that I have met in my life, and his example of selflessness is a great lesson that I will never forget. Albert was also a very funny person; everybody recognized his ability to make any social situation an unforgettable moment of joy. I probably know most of his jokes by heart now and his expressions will be always in my mind as one of my best memories of him.

He was such a unique mix of the wonderful qualities found in both a friend and a colleague. I will miss him, but I am happy to have the chance to recall such good memories of him now and in the future; this, after all, is what makes people unforgettable. Gracias, Albert!

Marco Calabria.

Post-doc of Albert.

The first time I met Albert at grad school, he confronted us with intellectual challenges about language production, teaching us to think like real psycholinguists. While I, vehement, passionate, and without having read a single article on the matter, enthusiastically

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discussed about switch cost effects in bilinguals, he maintained a critical attitude challenging with few but clear words each of my (weak) arguments. I was talking to the Pope about Rome, without knowing that he was the Pope, and without knowing Rome at all. Without knowing it, I was playing Albert, and he was simply acting as an astute guide and sage. That day I realized about the difficulty of mastering the alchemical process of mixing wisdom and curiosity, knowing and wanting to know, the teacher and the pupil. Albert, assertive genius, knew what role to play in every situation to bring out the best of everyone. This is the first best learning he gave me.

Life went on, and our shared interests brought us together in recent years, first as collaborators, and rapidly transcending the professional barrier. Throughout my career I have published many scientific articles, but two out of all of them represent something truly special, even if their impact in the field was not huge. I was infinitely happier designing those studies than seeing them finally published. Our work is not always measured by the impact that the completed studies have out there, but also by the impact that the process of designing the studies has on us. And that's where Albert made the difference. Both studies arose from discussions and whiskeys with Albert away from the laboratory, at his house, at my house, on vacation in Andalusia, Catalonia or the Basque Country. That was Albert, a person capable of generating an ideal space to quench thirst of knowledge, wherever. Knowledge knows no limits. This is the second best learning he gave me.

Albert left us just like he had left us many times before in the middle of the night after a party, without big goodbyes. But just as it always happened, his silent farewell did not go unnoticed. He left that morning on December 10, 2018, at the same time that I was getting married. My wife now knows that I will never forget my wedding anniversary. That's the second most important thing I'll remember every December 10.

Jon Andoni Duñabeitia.

Graduate student Albert.

I'll be always proud to say that Albert Costa was my mentor. I worked as a clinical neuropsychologist for 3 years at a general hospital before starting my PhD with him. Among all the patients I had the opportunity to test during that time, aphasics were those who fascinated me the most. This fascination led me to seek collaboration with Albert, who had just come back to Barcelona after a few years abroad. The very first discussion we had about the cases of a few aphasics I was seeing at the hospital opened a whole new world to me. Ever since then, I have been thrilled with every debate. A million courses or books on cognitive science of language would have never enlightened me as much as a 5-min chat with him. I became captivated by research on brain and language during those meetings to the point that I left clinical practice to join Albert's research group at the University of Barcelona. Albert's rather strong character clearly contrasted to mine, and the fact we got along well puzzled most people. I was asked about how this was possible countless times. I never knew the answer. All I can say is that I always admired Albert's way to approach research and life. I like to think I absorbed at least a bit of his attitude on either fronts. I miss him.

Mireia Hernández.

Albert's PhD-student 2006–2010.

"Escolta [Cat. listen]..."

I could breathe a sigh of relief: hearing Catalan meant that Albert was addressing Mireia (Hernandez), sitting at the desk right in front, and not me, whom he addressed in Spanish. This was during the time that Mire and I were sharing an office with Albert (and tried to be as quiet as mice when he was around).

At the time I had some reasons to avoid being the momentary center of Albert's attention. He could ask what I had accomplished for the past week (and I didn't quite know - where had time gone?!) or point out that there was a mistake on the very first page of the article I had been writing (how was that possible, I prided myself on my attention to detail?!) Each of our early meetings started with him asking "*So what is the project about?*" and I wondered why he did that every time, and I felt I always failed to give a coherent answer. In fact, Albert didn't spare praise of his Ph.D. students - but "so our ears didn't grow too much" out of pride (as people would say in my L1), expressed it mostly when he talked to others about us, and typically in our absence.

Mainly this was a time of awe. There were the hours sitting on Albert's desk (careful to minimally disturb the scattered papers piled on top), looking from behind his shoulder as he was typing, to learn from the way he was fixing our paper. There were the long, absorbing discussions, like the one we had trying to explain some language-switching data - we didn't realize until many hours later that a major power outage had disrupted Barcelona big time. When he had to leave campus to pick up his son from school, he would say, "*Walk with me*", and we would polish final details until he got out of the building and into his car. At one point I remember saying, "*We could maybe take this route to explain the data but there's a problem: it goes against what you have previously said.*" He answered: "*Don't worry about that. Let's see if it makes sense.*"

These were also the times of the one-hour sit-down lunches at the Bar nicknamed "los Yayos" (the Grandparents") at the university's Campus Mundet. Albert would comically tell a story. We would discuss science, the brain, evolution, politics, homeopathy, anything really, which Albert energetically presented to us with a thought-provoking question and a smirk. More discussions took place in his car, as he was kindly giving us a ride from the university, perched above the city, to a convenient spot where we could take the metro. At other times our discussions included our guest speakers, whom Albert tirelessly showed around Barcelona - a spot of hidden Roman ruins in the Gothic Quarter of Barcelona was his favorite - or took to the best places to try *cargols* [Cat. Snails] or *zamburiñas* [Sp. scallops] and walked them through the intricacies of Catalan cuisine. The best Spanish tortilla? Without a doubt, the one that has runny egg in the middle.

Now, every time I meet with my students, I begin the discussion with, "*So what's the project about?*". I also often use Albert's shortcut for "it is important to convey to your audience the significance of your research": "*And so who cares??*" I hear his booming voice in my head.

And each time I think, yes, it's true what we said once about our mentors. Each of us is now a little bit Albert.

Iva Ivanova.

Albert's Ph.D. student 2005–2010.

Albert Costa, Master at his Craft: A personal note from a student and friend.

I met Albert when I was an undergraduate in Alfonso Caramazza's lab at Harvard University, where Albert was a post-doc. He was my first chaperone in the practice of language research, escorting me through everything, big and small, that goes along with the practice of running speech production experiments. Albert was in full bloom. He was animated and motivated and hungry and seemingly going in all directions at once; in retrospect, he was always moving forward. He spoke in a salad of three languages; he would start a sentence in English, work in some Spanish expletives, and finish up in Catalan—as if we knew what he was saying. And with some creative interpolation we usually did. It was the most wonderful introduction to psycholinguistic research.

But the lessons that Albert pantomimed outside of the lab were more important and enduring than anything to do with science. Albert's world-view was magnanimous and big hearted and open, and contagiously so. There was no seam between science and life; he recognized, always, and deeply, that people do science and he loved people and he loved science. One of Albert's very special gifts was the way that he went about his work.

Albert was always thoughtful, never ponderous; he was not full of himself, even when he pretended to be. He was gentle and kind and generous and beautiful in his manner while unsparingly direct in his arguments. He was selfless; but don't waste his time. He was adamant but not strident. He was unapologetically clear and his grip on the matter was firm; but his touch was soft. His mind gimbaled away the extraneous in an argument, and he could articulate the difference. That is who Albert was, the same in science and in life. Dimensions of a person: *so many fiends and gods*. All of it with a buoyancy of spirit that was Albert.

Albert Costa practiced science in the same way as he practiced life – jovially, graciously, generously, unsparingly, productively, and with a sustained and focused freneticism. It was all one craft for him.

We would all do well to live a little bit more like Albert.

Brad Mahon.**Undergraduate and PhD while Albert as a post-doc at Harvard University.**

Who was Albert? The best scientist with the worse character ... quite an explosive combination! Working with him was a constant challenge. It meant learning and thinking more and more every day, not only about science but also about life. Anytime we were having a beer at the "Bulgaro", conversations constantly ended up in new research projects ... and having one or two beers per day thus made us working on many projects!

Albert has been a mentor in many ways, the best "Beer-Brainstorming" companion ever.

My largest regret is that no other student than me and my friends from Barcelona will have the chance to learn from such an inspiring, crazy, exuberant and explosive human being.

Clara Martin.**Albert's post-doc student, 2008–2012.**

A force of nature.

I remember the day I entered Albert's office to discuss the first draft of my thesis. We can do two things, he said straight out, we can either waste the whole day discussing what is wrong with it and looking for ways to improve it, or we can waste 10 seconds and agree that the draft is bullshit and that we will see each other next week. Which option do you prefer? On another day we were talking about work and soccer. He insisted that science had to be done like Ronaldhino (a famous FC Barcelona's player at the time) plays soccer. I answered that this was obviously impossible, but he continued to insist until I practically yelled at him, it's impossible. Then you shouldn't do science at all, he said. It wasn't always easy to be Albert's PhD student, but it was always fascinating and exciting.

Albert had the doors to his house wide open. As he cooked you a potato omelette, he would give you a lesson on word production. And he was amazing, both as a cook and as a teacher. He shared his wisdom with everyone and constantly offered it freely. At the same time, at work he was equally authoritarian and respected. His keen intelligence justified both. He is the most charismatic person I have ever met. He would talk about life and work wrapped in an aura of fascination, intelligence and a sense of humor that were irresistible. Innately curious, always ready with some topic to discuss, he constantly wanted to know everyone's opinion, every day and tirelessly. It was exhausting. In the face of such a force of nature, being a doctoral student as I was then, I tried to take on board what I could for my trip: his love for life and the importance of rigorous work.

Albert was not very good at playing soccer, but doing science he wasn't only Ronaldhino, he was Messi. I will always be grateful because, for a time, I played alongside the best.

Eduardo Navarrete.**Albert's PhD student.**

The summer of '07 was a long one. I spent the days working long hours at the beauty shop I where I had my summer job, and checking my inbox almost compulsively to see whether I had been accepted at the master's degree that Albert was coordinating. Then one day, Albert emailed, and a few week's later I met the person that influenced my career the most. Just a few weeks into the Masters, we had to start considering if we wanted to get into the PhD programme, and with whom. A colleague who had known him for long said to me "Albert is bold, working with him won't be easy. But he's incredibly bright and you'll learn a lot", so that made it. We worked together for almost six years. Those years were bittersweet as there were moments of crisis because my studies were not working as expected, or I feared I was letting Albert down. But there was also recognition, lovely dinners where Albert got us bracelets for Christmas, nights out, little moments filled with jokes, his loud laugh, him singing ... and those mornings where I would go to his office to have a chat and he had his sunglasses on, lying on his chair, his belly almost out ... I miss him. We all do. He was a brilliant, generous man.

He had this power of seeing all the mistakes that you could possibly have made at once. I'd say working with him was not easy, but I am forever grateful to him as he made me strong, independent and critical; he nurtured the "inquisitive seed" in me. To me, that's his

legacy, which I try to honour everyday working on passing this bit of Albert to my students. I hope you are proud.

Sara Rodriguez-Cuadrado,
master's degree and PhD student, 2007–2013.

“Ho visto un angelo nel marmo e ho scolpito fino a liberarlo”. Michelangelo Buonarroti was able to see the figure he had to sculpt on the piece of marble that arrived at his workshop. I like to think that Albert had the same ability to see the future researcher in the PhD students who came to his lab. Sometimes with hard hammer blows, sometimes with light chisel strokes, he shaped us all who passed through his hands in one way or another.

I met Albert on a September morning, after arriving almost an hour late for a job interview with him (it was my first time in Barcelona, and I got lost in the subway ...). I was surprised that he took me in without any problems in spite of my delay, and he continued to surprise me every day during my PhD studies. He had the most brilliant ideas and the fiercest criticism; he made the most insane jokes and had the most feared cough in the halls of the university. He will be missed, and we try to live up to him.

Carlos Romero-Rivas,
Albert's PhD student 2012–2016.

Tú nos ves, verdad?

Toda palabra queda nimia ante el vacío que has dejado, pero al mismo tiempo, pensando a menudo en qué pensarías, sigues ocupando un espacio vital, y desde ahí tú nos ves, verdad? Con esta certeza he ido posponiendo la escritura de estas líneas, por miedo a decepcionarte, o quizás por saber que no iba a poder contar con tu opinión siempre acertada pero nunca muy favorable a la primera, empujándonos a buscar la perfección, y sabiendo que no iba a poder rectificar este texto que casi seguro hubiera sido mucho mejor de haberlo escrito de otra manera ... tú nos ves, verdad? Y sabes que sigues siendo y estando presente a través de esa mirada, pero también a través de tus comentarios francos, tus conocimientos sorprendentes y tus contribuciones apasionadas sobre casi cualquier ámbito, por no hablar de tu autenticidad única, enorme y por lo irremplazable, omnipresente y esa personalidad alternando chulería encantadora con insolencia y guardando no del todo herméticamente el secreto de un corazón igual de desmedido que lo demás ... Verdad que tú nos ves?

Elin Runnqvist,
Albert's PhD student 2008–2012.

I first met Albert through the notes and comments he had made on a preprint of Levelt and Roelofs' influential “A theory of lexical access in speech production” (Levelt & Roelofs, 1999). Nuria Sebastián-Gallés, his PhD supervisor and friend, handed it in to me to introduce me to speech production models. “My former PhD student left it here and it has some notes, but it will be a good reading to begin with”, she said. Damn yes it was! Full of underlined points and u-shaped as if it had been carried rolled up to all the “tasas” of Barcelona, where Albert loved to read and discuss science (and life). A bit later, in December 2000, Albert flew from Boston to Barcelona for Christmas holidays and I had the opportunity to meet him at the Psychology Department of the Universitat de Barcelona. The meeting was short and intense, and for many weeks I could hear Albert's deep low bass voice talking enthusiastically about lemmas and lexemes, about semantic, and phonological and frequency effects, about activation and interactions, and about a hundred experiments that could be run. There began my interest in speech production.

I met him again in Trieste (Italy) in October 2001. Albert was now a post-doctoral researcher in Jacques Mehler's lab at SISSA, where I went as a visiting student for a 4-month stay. Albert invited me to his home to celebrate the first year birthday of the person he adored and loved most, his son Alex. He immediately involved me in several speech production experiments, including the language switching experiments that would become the core of my PhD thesis. It was not always easy to work with him, since it was difficult to follow his sharp mind and match his enthusiasm and expectations. He was direct, tough and demanding at work. Albert was emotionally intense, passionate and relentlessly devoted to his scientific and vital goals. He was also jovial, friendly and a giving person. He deeply cared about the people around him, and helped many of us overcome difficult times in our scientific career and life.

Albert was a fount of knowledge and a turmoil of life that engulfed anyone around him and infected all of us with his insatiable curiosity and passion for life. He always managed to bring out the best in each of us, and he made us better scientists and people. “Nene! Ens veiem després!”

Mikel Santesteban,
Albert's PhD student.

A mild evening in a bar in Barcelona. It's October 2006 and I have just arrived as part of an Erasmus program where I would be spending the next 6 months in Albert's lab. Albert has taken all his students and myself out for dinner, and now we are drinking ‘copas’ to finish the evening. Well, finish ... at 3am we're still drinking and dancing. This Erasmus internship is going to be fun. The day after, I have a meeting scheduled at Albert's office at 10am. With a heavy head and a stomach which seems to be shaking ‘the Macarena’, I arrive at 11am. Albert sitting at his desk, dark sunglasses covering his likely bloodshot eyes, is clearly annoyed. I am about to get my first glimpse into the inner workings of Albert's mind: “*Barcelona is a fun place, and I don't care how much you drink or until how late you party, but do you only want to take a bag of fun back with you to Belgium? If that's what you want, ok, you can leave now, I'll give you a passing grade for the internship, and I don't need to see you again. But if you want more out of this, if you want it to mean something, let's try this again tomorrow; be here at 10am and be ready to work*”. The next day I returned, ready to work, and it was still to this day one of the most stimulating experiences I have ever had. The whole day I was in Albert's office, discussing, debating, questioning, drawing word production models, pushing me to go further, getting angry with each other, being happy with each other. Not only did we devise the experiment that I would be doing during my Erasmus stay, we devised a whole PhD project for me to return after I have finished my Masters in Belgium. There, in that moment, I knew this is what I wanted to do, and I understood what he meant with getting more out of this, finding the meaning of my visit. It decided my future and I don't regret for a single moment. Thank you Albert.

Kristof Strijkers.

Albert's PhD-student 2007–2012.

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