The present and future of linguistics (i): An interview with Juan Uriagereka

A conversation on Spanglish

Two languages, two minds? Horrifying Schrödinger
As this issue is about to be released, I'm excited to report that our family keeps growing at a steady pace. More and more people are joining us, and I hope even more will join us in the near future. As I said in the previous issues, please continue to help us spread the love for this discipline, whether you are already a linguist or a linguist-to-be. Our magazine is available on our Facebook page as well as on the website of the Department of English at NTNU. It's important that you share it with colleagues, friends, and anyone you know who is or may be interested in language.

Our third issue features articles the implications of bilingualism and Spanglish, and also an interview with Professor Juan Uriagereka. Enjoy!

To all of you, linguists and non-linguists, thanks for reading!
A conversation on Spanglish

By Julio Villa-García & Álvaro González-Urzúa (University of Manchester)

P(person) (a well-educated but rather skeptical interlocutor): I recently listened to an interview featuring you, and the journalist seemed shocked that a phenomenon such as Spanglish, which we perceive as something funny, could draw the attention of researchers round the world. I agree with her. Why has it come into focus in current research?

L(inguist) (ready to generously spread the gospel): Well, Spanglish is a term that refers to the mixture of English and Spanish when the two linguistic varieties establish a contact relationship (e.g., in the USA and in Gibraltar). This mixture happens on all linguistic levels, namely with respect to sounds (phonetics), words (morphology), sentences (syntax), and meaning (lexicology and semantics). Importantly, such mixtures aren’t rare phenomena around the globe: they occur whenever two or more languages co-exist in the same geographic space for a period of time. Since linguistics is about studying language scientifically—and one of the goals of the discipline is to provide a window into the human mind—, it should come as no surprise that Spanglish has caught the attention of researchers worldwide—it is a natural consequence of bilingualism and multilingualism.

P: But if mixing two languages is considered by many to be an aberration in that the users don’t have full mastery of either language, why is it so interesting?

L: There you go! Now you have another misconception about contact phenomena like Spanglish. One of the major consequences of language contact is code-switching, or the juxtaposition of two or more languages in the same discourse. In our case, English and Spanish, thus:

(1) Mandaron una carta so that you can respond to their request

‘They sent (you) a letter so that you can respond to their request.’

In (1), half of the sentence is rendered in Spanish and the other half in English. Do you really think this indicates lack of mastery in the two languages? In fact, it’s rather the opposite: switching requires a high degree of proficiency in the languages involved, because each chunk, as you can see, adheres to the rules of each language—and, in turn, to the rules underlying code-switching. Therefore, code-switching is found at high levels of linguistic competence.

P: So only expert speakers use it?

L: In a way, yeah. Switches are found among people who are fluent in the languages involved. In fact, as an anecdote, let me tell you that there are parts of the world where code-switching is actually a prestigious feature. For instance, in New Guinea, switching between Buang, Tok Pisin, and Yaben among trilinguals is regarded as a symbol of prestige (e.g., in public speeches), so there’s nothing intrinsic to code-switching that makes it good or bad.

P: But code-switching seems rather random…

L: Well, there’s the question of whether speakers switch codes at will (and research has found different functions for switches, such as to signal direct speech, mark identity/biculturalism, and fill a vocabulary gap, among others), or whether it sometimes happens spontaneously. Whatever the case may be, evidence from bilingual child language acquisition suggests that this phenomenon is pretty natural; very young children do exhibit instances of language mixture:

(2) Uh mi corazón se llama | call heart

‘uh my heart pronoun call_3.SINGULAR’

[Carla, USA, 2 years and 7 months, CHILDES database]
Now, note that not everything goes, so what you call random is indeed not that random: switches have to abide by complex tacit constraints—restrictions on what’s possible or impossible that linguists are painstakingly researching as we speak. Consider the following command:

(3)  
*¡Mándame!  
SENDIMPERATIVE+PRONOUN1.SINGULAR+PRONOUN3.SINGULAR  
’Send it to me!’

As shown by (3), unaccented pronouns in Spanish commands follow the verb—they appear as verbal endings. Specifically for our purposes, one of the pronouns appears in English in this example. The sentence is not accepted by bilinguals, though.

**P:** Why is it a bad code-switch, then? But anyway, aren’t all code-switching instances wrong?

**L:** The ungrammaticality (indicated by the *) of (3) in code-switching has been attributed to a potentially universal constraint against mixing morphologies within the confines of the same word. So yeah, code-switching is very natural for bilinguals and multilinguals and isn’t really arbitrary—it is governed by sophisticated yet subconscious rules. It should be noted, however, that this generalized confusion and negative perception surrounding the phenomenon may in part be due to the fact that there are cases of pathological code-switching, but this is a disorder caused by brain damage and completely different from code-switching in everyday language use.

**P:** So you say that alternating codes is the most salient example of language mixture. However, this seems to imply that there are other manifestations…

**L:** Absolutely! For many people Spanglish refers only to code-switching, but it turns out that Spanglish is a more general term used to denote the hybrid form arising from language contact. This mixture is reflected in different ways, with code-switching perhaps being the most obvious manifestation. But we do have others.

**P:** Which ones?

**L:** For instance, the phenomenon of ‘false friends’ is a case in point, since it shows the use of a cognate—a word with the same origin—with the meaning of the other language. To illustrate this concept, take a word such as actualmente in Spanish. Its English cognate is clearly actually, but the meaning is different in each language: ‘currently’ in Spanish and ‘in reality’ in English. Now, as a result of language contact, it could be the case that a bilingual speaker employs actualmente in Spanish with the English meaning of ‘in actuality,’ rather than ‘at present.’ Another consequence of language contact is that of loanwords or borrowings from one of the languages (for instance, the fashionable term Brexit has recently been borrowed by the Spanish language).

**P:** Just vocabulary?

**L:** No, by no means! There are other instances involving sentences in addition to switches. Take for instance grammatical calques—or when the grammar rules of one language are used in the other language. In the following example, the conjunction que (‘that’) is missing, although in Spanish it is obligatory; clearly, the speaker is copying the rules of English into his/her Spanish:

(4)  
Dice ______ está enferma  
say3.SINGULAR be3.SINGULAR illSINGULAR, FEMININE  
(cf. Dice que está enferma)  
‘She says (that) she’s under the weather.’

**P:** Interesting… So moving away from grammar a little bit, I have seen that Ilan Stavans has published extensively on Spanglish and has translated a portion of Cervantes’ masterpiece Don Quixote into this variety. Is this common? Are there also many research publications on the issue?

**L:** Certainly! Many pieces of Chicano literature feature Spanglish, and it is not uncommon to find songs that reflect this phenomenon. There’s even a movie entitled Spanglish. Incidentally, the University of Oregon celebrated the first National Spanglish Day on the first day of October of 2015. As for research and scholarly publications, there are reputable laboratories in prestigious universities devoted to bilingualism, symposia on the topic being held around the globe, handbooks by renowned publishing companies, and articles in top-notch scientific journals. I will give you some representative references later.
P: Wow, that’s very impressive! Who would’ve thought!

L: Yeah… Let me stress that the phenomenon is attracting a great deal of attention, and it certainly goes beyond spoken language. At the University of Connecticut, for instance, a team championed by Diane Lillo-Martin has been working on bilingual bimodal speakers, specifically hearing children of deaf parents who have been exposed to both English and American Sign Language from birth. Such children are really interesting to study, since their linguistic production can occur in two modalities on the fly (simultaneously through both the auditory-vocal channel and the manual-visual channel). As you can imagine, there are interesting patterns arising from such language contact situations, which will certainly shed light on the many questions surrounding bilingualism in the years to come, but we can talk about those on another occasion.

P: So just one more question. Would you say that Spanglish is a language?

L: That’s a very good question—certainly a non-trivial issue. Whether a linguistic variety is a dialect or a language is a political question (note the famous quote “a language is a dialect with an army and navy,” which points to the arbitrariness of the dialect/language dichotomy). There has been much debate on the status of Spanglish specifically, and you can check Ardila (2005) and the papers included in Stavans (2008) for relevant discussion.

P: Cool! ¡Gracias for teaching me tantas cosas sobre code-switching y Spanglish!

SELECTED REFERENCES


F-S: Professor Uriagereka, thank you very much for agreeing to do this interview. Could you first tell us how you became interested in language, given your background?

JU: First of all, many thanks for your interest in these matters. In Spain, where I grew up, I was a science major. In many European schools you have to decide by age 14 whether you want to major in the sciences or the letters. I didn’t have much of a letters background, as I come from a working-class environment (with few books, little regard for “culture” in the high-brow sense, more knowledge of farm animals or fishing than anything else you can relate to universities). So my folks expected me to study “the real stuff”: math, biology, and whatever physics or chemistry they may understand. Both of my parents had technical jobs, so they did value that, to their credit. Now I had a mind of my own, and as I started traveling (e.g. I got a scholarship to go to the US in 1976, months after “Generalissimo” Franco had died), I began to understand that the world is a complex place. As part of the orientation to send us abroad (a haven of radical ideas from anti-fascist idealists), I was given a jewel that Carlos Otero edited: a set of articles by Chomsky, who I’d only heard of in class as being ridiculed. What I read by myself was a revelation: here was a person speaking in a plain language that was similar to that of my folks at home, with pretty radical ideas about labor, class, societal and international relations. Now I was reading this in print! So, much to my parents’ fear of my getting in trouble, when I returned from the US I was pretty radicalized. I started economics, which I thought was a pre-requisite to change society. I still love economics and do think you can’t exert social change without a firm economic base. But… what I was receiving in class was quite far from my ideals for a just society. I did learn some math that I still use, but it was pretty clear that I wasn’t going to be an economist to join some business. So I was in crisis until my girlfriend, Paloma Lapuerta, showed me a way out. She came from a very different background: her parents were liberal and well educated, they had books and art at home, it was wonderful to talk to them about philosophy or politics. Paloma encouraged me to write and express myself in various ways, and insisted that I should follow my passions. If I liked Chomsky, why not study his ideas? At the time that meant going into something I didn’t even knew existed: philology. In fact, not just any kind, but the sort that would teach you, well, about Chomsky. And there I got a lucky break: at the University of Deusto they had a program where much of this was discussed, and some wonderful teachers and thinkers, who have been my friends to this day. At first I had no clue what I was doing, coming from economics. But they were patient with me, to the point that the likes of Juan Villar, Peter Lavery, Deanie Johnson, or Manolo Breva, would literally take me to the side to work with me, or even take me jogging while explaining things in detail! They were so decent that although I couldn’t afford to pay the school (Deusto is a private university), they showed me that I could register if I presented a working contract to the administration (I had that, as I always worked to pay my studies). The ploy was I could take the exams at the end of the year, while they accepted me in the classes as an auditor, even if I wasn’t registered… Eventually I took the State Exam to validate my studies and I suddenly had a degree: enough for me to apply to a bunch of schools in the US, most of which didn’t accept me of course. But Pittsburgh did, and the rest is pretty much taking one step at a time.

Would you say that this is the way most people become linguists?

No, not at all. At least not these days, or not in the First World anyway. The kids that come study in Maryland know more as students than I did after I received my Ph.D., years after that story! I’m often embarrassed by how well prepared they are… I suppose there are people in the rest of the world who still have bizarre stories like mine, and I try to encourage them to always keep trying: if you try hard and persist, you will find an opening. Of course you do need mentors, and I was blessed in that regard. It was the same when I came to the US. First, the very idea of coming was suggested to me by Esther Torrego, who I met when she came give a talk at Deusto. At the time I was working for a radio station and was assigned to interview her. She was dynamite, and I was very impressed by her knowledge and scope. At the interview she bluntly told me that I should go to the US and seek an academic career. She helped me right away, and it was she who suggested I should go learn some linguistics from Howard Lasnik. I had no idea who he was, and at first I didn’t even dare to apply to Connecticut (I tried to go to schools who would accept people who could teach Spanish as a second language, since I knew I couldn’t afford to pay my studies otherwise).
Long story short, when Howard met me, he convinced me to go work with the team they had at UConn. Once there, so many people helped me learn the craft! And at MIT too: in those days people didn’t mind if you sat in on classes. I heard lectures, aside from Chomsky himself, from Richie Kayne, Jim Higginbotham, Ken Hale, Luigi Rizzi… and I didn’t have to pay a cent! It’s hard to believe that they were so good natured about it all. And not just the classes: I met with all of these professors in their office on countless occasions! They were only interested in the content of your ideas, not your pedigree. I suppose these days everything is very organized, and you need a visa and permits and what not. You need to “register”. Well, I tell you: I never registered for most classes I took! I suppose this is also part of why I am so scattered, just a reflex of who I am and how I came to be this person, a bit like a folk quilt that lots of people assembled.

What is the aspect (or aspects) of language that interest you the most or you find the most fascinating?

I still remember the day I was given to read Jacobson’s “Linguistics and Poetics”, where he modifies a classical quote to say something like “I am a linguist, everything linguistic interests me.” And that’s pretty much where I am. I won’t lie to you: initially I came to all of this from politics and literature, as I saw myself as an activist or a writer, I suppose. I did a lot of theater work, for instance. So I like the poetic aspect—in the sense of creative writing. I even have a published novel with my dear friend Javier Diez. But once I started learning some linguistics, it was hard for me not to be fascinated by it all. I mean, what isn’t incredible? And when someone is as lucky as I was in having wonderful folks teach the stuff to you, whether it was the colleagues from Haskins Labs talking about the Motor Theory of Speech perception, or the logic types at UMass (where I was a postdoc) talking about quantifiers, or of course all those syntax folks at MIT… you’d have to be a knucklehead not to appreciate the beauty of it all. In addition, the luckiest break of my life was when I was facing a tough future, as I’d been avoiding the military in Spain (the draft was still in place, and many of us were going into conscience objection or, in my instance, facing “just” the loss of my passport). David Michaels, the department chair at UConn, then convinced me not to give up my papers, and did more than that: he personally pleaded to the Spanish Embassy to change my status to that of a US resident (which of course I wasn’t!). Amazingly it worked, so I dodged the military, but this also meant I had to find a real job in the US, or I would be in legal limbo—as I could literally not return to reside in Spain for seven years. Well, then David Lightfoot recruited me for this set of Chomsky followers he was putting together into a Linguistics Program at Maryland. He often tells me now, when we meet for dinner, that what he liked about my approach was precisely its coming “from left field”, as they say in baseball. Bottom line is: there I was, having always caught the last wagon in all trains I jumped into, I had a real job with a group of folks that believed the same general ideas I did. It is certainly in Maryland that I completed, if such a verb can ever be used, my training. In that community, it is hard not to like language as a whole. We are often accused of being too “syntactocentric”, but this is simply not true. If you look at the Language Science Center that Collin Phillips is directing, whose germ was initiated in Linguistics, you will see that we work across the entire spectrum of the university. In my own technical work, my colleagues in research are anywhere from physics to computer science, of course math, biology, psychology, electrical engineering, and so on. Because language touches on all of that, literally.

The lay person would think of language mainly as a means for communication. To what extent do you agree with this functional, external view of language?

Language has many dimensions, all of which are angles that allow for a certain approach. Will you learn something about language by studying its societal patterns, its information-carrying potential, its communicative aspects, its cultural implications? You bet! The problem is if you insist that this is the only way to proceed, or that it is “better” than others. That would be silly, in the study of any complex system in the universe, really. So if I ask something from students is to always be open-minded. Even in disagreement: we are a species that has the privilege of learning from disagreements, finding a deeper understanding. Of course, that’s not the rhetoric you often get in politics, where you are supposed to crush your opponent. And then what, after the opponent is dead—or you are dead? To me it is much more interesting to “battle it out” with the spirit of a good soccer match, say, where you are going to get the best of every player if the teams are competitive. Same in economics, obviously: agents competing for a market do much better than monopolies that become stagnant. And certainly the same in language: I often learn the most from those I genuinely disagree with, who force me to clarify my arguments and rethink them. It isn’t easy, but the results are always better. My approach to language focuses more on the internal, individual, aspects, those that derive from biology, physiology, psychology or even the underlying physics. Surely not the only component, but I’d say an important one, in its interactions with all other factors, from (epi-)genetics to historical accidents.
Many linguists believe that linguistic research can reveal important aspects of human nature. Could you comment on this claim?

Certainly that has been the case since classical antiquity. I actually think the first scientists and philosophers were necessarily linguists, and this is how they invented creative uses of symbolism, from art to dialectics, and eventually writing systems, multiple times in human history. Those pioneers set the foundations of rational debate and analysis, which of course leads you to what we now think of as science (traditionally this was called “natural philosophy”). In my view, also, such critical thinking also led to the first analyses of ethics and politics, leading to the birth of social experiments like democracy, finance, revolution, and the like. This, of course, is all complex, but whether you like some ideas more than others, they are certainly that: ideas. That is what unifies humans: we are “idea organisms”, like no other creature in the known universe. And the spinal cord of those ideas is certainly language and the discussion of what it is, how it can be transmitted, how it can be fixed, or even how it can be translated or expressed in eloquent ways. Those are the kindles of multiple human fires across history, some of which manifest themselves in our myths, others in our incredible human results—and sadly, also, our terrifying conflicts, usually based on disagreements over those ideas when they turn into ideals. If that is not human nature, I don’t know what is. If that isn’t, for starters, linguistic, I don’t know what else it could be. Imagine doing science, any science, without dialog or writing? And imagine seriously making progress in those methods without understanding the basics of language...

Sometimes we feel that the general public doesn’t consider language to be worth doing research on. How would you try to convince them otherwise?

You think? I actually have the opposite experience. There hasn’t been a country I have taken a taxi in where, once they learn that I am a linguist, cab drivers don’t proceed to tell me their own take on language. It is so central to our experiences that everyone I know has opinions! Of course, those can be somewhat naïve, in part because the phenomenon, while being so close to everyone’s experience, is also so inherently complex. But I think we can take advantage of people’s general interest to try and pursue venues for improving our research. I am old enough to remember when people had no clue, say, about dyslexia—my own brother, who later in life we found out is dyslexic, was given countless punishments by the educational system in terms of his not being able to use familiar patterns for reading. My youngest child too has dyslexia, but we intervened soon and at age nine he is already an avid reader, who naturally speaks about his condition not as a curse, but as a property. I’d say this is extraordinary progress in one generation, and of course we will do better in the future, as we understand how dyslexia works well enough to diagnose it when children first go to kindergarten or before. The same is true about many other language-related deficits, which we didn’t know about a short generation ago. I think the language sciences are ripe to explode into a new generation of models that will hopefully connect well enough not just with brain studies, but also with underlying molecular biology aspects. Your readers, if they are my children’s age, will probably experience this within their lifetime. Then many of the terrible situations of language breakdown that associate with both injuries to the brain or mental illnesses will be dealt with in ways that we can’t even begin to fathom yet. I’m sure the explosion I’m talking about will also permeate our international communications. Automatic translation among languages will be done in a matter of milliseconds, I’m sure. You may not get the good jokes of course, but you’ll get enough to find where the bathroom is or how to catch the next train. Same with countless other technological applications, where we will use the algorithms implicit in language to search through humongous databases that the internet gives us access to. But matters go beyond health and technology: I believe in the future our children will be able to use language and science to eradicate poverty and move us, as a human species, outside our little planet. In my view, though, all of that will be possible only with a full understanding of language, just like five thousand years ago we needed enough of an understanding of language to come up with multiple writing systems. It wasn’t an accident that the more organized societies figured out how to record language, a technological feat if there has been one in human history. If our modern societies organize in the understanding of language, the bright future I am painting will be possible too. We just have to think of language as a precious tool, not a dangerous weapon. That choice is really ours.

TO BE CONTINUED…
Two languages, two minds?

Horrifying Schrödinger

By José-Luis Mendivil-Giró, University of Zaragoza

One of the most important theoretical physicists of the twentieth century, Erwin Schrödinger, considered “obvious” that there is only one human consciousness, and that the feeling of having an individual mind is just that, a feeling (Schrödinger 1944). With all due respect for the father of the wave equation of quantum mechanics (for which he received the Nobel Prize in 1933), I will continue to assume we all have our own minds and our own self-consciousness, but just only one.

It is not difficult to imagine the Viennese genius turning in his grave if he could read the paper “Two languages two minds” (Athanasopoulos et al. 2015), because if the authors were right, an extra proliferation of minds in people would be involved. Athanasopoulos et al. echo the famous statement by Charlemagne that speaking another language is like possessing another soul, and they update it implying that speaking two languages is like having two minds. The phrase is good as a headline (although not as suggestive as that of Charlemagne), but it implies a rather drastic devaluation of what we usually mean by mind and (I suspect) a somewhat simplistic view of the relationship between language and cognition.

The logic of the experiments in which that conclusion is based is relatively simple. It is based on the interesting fact that monolingual German speakers are more likely to identify a video in which a person walks towards a car (without showing if the person reaches the car) with a video in which someone enters a house, than with a video in which someone goes towards a distant building without reaching it. This would imply that, when in doubt, these speakers tend to focus more on the end of the event (entering the house) than in the development of it (walking towards the distant building) and, therefore, they more often categorize the incomplete car video as of the first type. The reverse situation occurs with monolingual English speakers, which tend to identify the car video with the far building video (focusing on the unfinished development of the event). According to the authors, this is because the progressive aspect is grammatically encoded in English, while it is not in German. According to their data, only 37% of English speakers identified the event of the car with the house event, compared to 62% of Germans. It is an interesting phenomenon, no doubt about it, but it adds nothing to the already widespread and (in my opinion) unfounded claim that an “English” mind can be different from a “German” mind.

Bilingual subjects are the tricky case. If a German mind is different from an English mind (let us assume so for now), what is the mind of a German-English bilingual speaker like? Or does he/she have two minds? By now it is clear that we no longer know well what the word mind designates, but let us continue.

In a first experiment described in the article, German-English bilinguals tended to behave like monolinguals, though with less pronounced differences. So, when the experiment was done in a German context (because the subjects are given instructions in German and they have to respond in German), speakers tend more often to prefer the house video as more similar to the car video (and not the building video), whereas when the same subjects act in an English context, they tend to prefer the building video (which marks the event in progress, not completed) as more similar to the car video. Although the authors do not say it, this more moderate behavior of bilinguals can be an effect of the interference between languages, so that when they speak German they are less “German” than German monolinguals, and when they speak English they are less “English” than English monolinguals.

The second experiment is more interesting, but much less statistically conclusive, and more cumbersome in design. In this experiment the “verbally mediated categorization” of bilingual speakers is hindered by making them repeat aloud a sequence of numbers while performing the same task of the previous experiment. According to the authors, this interference task inhibits the language in which it is assumed that the subjects are thinking, and it makes them to choose the options that correspond to the other language. So, when bilinguals are doing the experiment in “German context” and their German language is interfered making them repeating numbers (in German!) while watching the videos, they are less likely to choose the house video (the one preferred by German speakers), and they are more likely to choose the far building video (the one preferred by English speakers). Halfway through the experiment a change is made, so that they have to say numbers in English (supposedly to disrupt access to this language) and then it turns out that they tend to choose more like “Germans”. The explanation offered by the authors is that when the task of verbal distraction interrupts access to the language of the context of the experiment, the other language takes over, so to speak.
This is not the place to assess the assumption that access to language (or, as the authors say, to “verbally mediated categorization”) can be interfered by the task of verbally repeating numbers. But it is worth noting the apparent contradiction in assuming that the active language can be interrupted, and assuming at the same time that the other language, supposedly inactive, comes to supply the “disrupted” one, because then it is not clear that the verbally mediated categorization (whatever it may be) has been really interfered. Note that the same task of distraction applied to monolinguals would imply that no language is used for the test (because they have no other language that may be a supply), which just shows that the influence of a given language in categorization is modest, unless we assume that there is no categorization of any kind. But this makes no sense, since in that case the monolingual subjects are not inactive, but continue identifying the videos (although using something that is not language, according to the logic of the authors).

The paper claims to have shown that English-German bilingual speakers have a flexible categorization of the world depending on which language is dominant in a particular task of identifying motion events. Its conclusions are rather ambitious: “These findings show that language effects on cognition are context-bound and transient, revealing unprecedented levels of malleability in human cognition.”

But if the effects of the spoken languages on cognition are context dependent and transitory, I think that what this study shows is that the effects of the specific language one is using on cognition are really weak or superficial, so that speaking of an unprecedented malleability in human cognition is not appropriate. If we accept that statement, then we should acknowledge that the term cognition is used in a different sense when used in the quoted text and when used to refer to human cognition in general (as compared, for example, to feline or avian cognition). Perhaps an underlying problem is that cognition is identified with categorization, but that is an overly complicated issue for this occasion.

Anyway, the suggestion that bilinguals have two minds contrasts with research on bilingualism in recent years. Judith Kroll et al (2015) summarize this progress in a recent state of the art which concludes: “Contrary to the view that bilingualism complicates the language system, this new research demonstrates that all of the languages that are known and used become part of the same language system”.

Bilinguals (contrary to what was believed in the past) do not work as two monolinguals, but their languages interfere with each other and tend to coalesce into a single system of knowledge. It has even been observed (see Kroll et al. for references) that the brain tissue employed in the storage and processing of the two languages is essentially the same. Of course, the bilingual brain is different from the monolingual brain, but not because the bilingual brain is split into two systems of knowledge (let alone two minds), but because it develops a more complex system of knowledge whose management increases certain abilities, just like lifting weights every day makes biceps grow.

The most notorious finding in recent decades of bilingualism research is that the two (or more) languages are always active and interfere with each other. It does not matter if the L1 is very dominant on the L2, if the two are very different in their morphology, phonology, syntax or even orthography, if one is signed and the other oral, or even if only one of them is used. The knowledge of a second language continuously and incessantly affects the use of the first language, and, of course, the knowledge of the first language (much more robustly) affects the use of the second one. The possible cognitive benefits of bilingualism derive from the extra need for the bilingual speaker to inhibit one of the languages when using the other, which provides an apparent improvement in the ability of solving cognitive conflicts (both in the use of language as elsewhere), and it even increases the protection against certain types of cognitive degeneration, including a delay of symptoms of Alzheimer’s disease.

Actually, the fact that the two languages are always active and interfere with each other is expected because they are part of a single system of knowledge (language). This conclusion does not support the vision of “two languages, two minds”, but, on the contrary, it shows that if there is a part of language that structures our mind and our consciousness (and it would be very strange if it is not), that part coincides with what languages have in common.

For the reader to be convinced of how frivolous (in the use of the word mind) may be the assertion that a bilingual has two minds, it is worth to consider an example of the opposite: a person with one language and two different minds. Indeed, whether there are people who have two minds (that is, if they are more than one person) has been seriously discussed, and I do not mean the cinematographic cases of dissociative identity disorders, but cases of people with a section of the corpus callosum connecting the two hemispheres of the brain. Perhaps the most famous case is P.S., a kid with split brain studied by Gazzaniga and collaborators (LeDoux, Wilson and Gazzaniga 1977).
Although it is a controversial issue, the authors suggest that each of the hemispheres of P.S.’ brain was self-conscious and had its own mind. The interesting thing (in what affects us now) is that after the surgery, only the left hemisphere could talk, but both understood speech, and the right hemisphere began to communicate putting together Scrabble letters to form words, using the left hand. It seems that P.S. had, unlike the patients examined so far, a substantial part of language in the right hemisphere (even though he was not left-handed). The exciting fact is that the right hemisphere was shown to have feelings, to know what day was the day after, what profession he would like to exercise (different from that declared by the left hemisphere) and, in general, all the attributes of a human mind. As LeDoux, Wilson and Gazzaniga noted, “each hemisphere in P.S. has a sense of the self, and each possesses its own system for subjectively evaluating current events, planning for future events, setting response priorities, and generating personal responses.”

The most important conclusion is that the fact that only in the case of P.S. the cognitive independence of the right hemisphere is detected, while the right hemispheres of other patients do not reveal such capacity for self-awareness (with the possible exception of another patient named Vicki), suggests to the authors that “the presence of a rich linguistic system is a reliable correlate, and perhaps a necessary prerequisite, to some of the richer aspects of mental life.”

It thus seems that the ancient intuition that language lies behind consciousness and the nature of the human mind makes sense. But, contrary to the suggestion by Athanasopoulos et al., the ingredients that form the fabric of our human mind are not the superficial, external aspects of language that differentiate German from English (i.e. those aspects subject to historical change and, therefore, variation), but what is common to all languages, including, of course, the various languages in the (single) mind of a bilingual.

I am convinced that this idea would have seduced Schrödinger.

SELECTED REFERENCES


