

Dyslexia and bilingualism

By Lêda M. B. Tomitch



Prof. Dr. Lêda M. B. Tomitch at Milford Sound in the South Island, in New Zealand

For my recent postdoctoral studies in 2018, I chose to carry out a piece of research entitled “Dyslexia and bilingualism: an EEG study of the cerebral bases of dyslexia in late learners of English as an L2”, which was conducted at the *Centre for Brain Research*, at the University of Auckland, supervised by Dr. Karen E. Waldie, leader of the *Cognitive Neuro Development Lab*. This location was chosen for two main reasons: first, for its excellence on dyslexia research, and second, for the collaboration that has been going on between us for more than 15 years.

Reading is a complex activity which encompasses component processes such as decoding, literal comprehension and inferential comprehension (Gagné, Yekovich & Yekovich, 1993), which must be executed so that

comprehension is achieved. According to Gagné et al decoding involves two sub-processes- ‘matching’ graphemic input with the meaning of the word in memory; and/or ‘recoding’ the graphemic input into its phonemic representation, before matching it with its meaning in memory (see Gagné et al for a full description of the other components).

In typical reading learning situations¹, the child, by being exposed to input in her surroundings and with the help of school and/or with mediation, learns to read naturally, that is, she breaks the code and gradually masters the component reading processes mentioned above. However, in atypical reading learning situations, as is the case of dyslexia, the child

¹ Here the terms ‘typical learning’ and ‘atypical learning’ are being used following a number of authors in the area (Laing et al, 2001; and Waldie and colleagues; among others).

does not even have the chance to go through the level of decoding (Shaywitz & Shaywitz, 2005).

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association, 2013), reference in the area, brings dyslexia as “an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities” (p.67), more specifically, dyslexia involves “difficulties learning to map letters with the sounds of one's



Science building, the location of the Centre for Brain Research

language—to read printed words” and as “... one of the most common manifestations of specific learning disorder” (p. 68).

In relation to its neural representation, recent neuroimaging studies indicate that dyslexia would be connected to an impairment in activation of posterior cerebral circuits in the left hemisphere, including the angular gyrus (a temporo-parietal region, important in the mapping of graphemic input into phonological structures of the linguistic system) (Shaywitz & Shaywitz, 2005; Park et al, 2012a), as well as an occipito-temporal region (Shaywitz & Shaywitz, 2005), responsible for the automatic recognition of words, the *visual word form area* (Dehaene et al., 2002). Another important finding in the literature relates to an indication of a greater involvement of the right hemisphere in dyslexia, as a possible way to compensate for a failure in activation of the relevant homologue areas in the left hemisphere (Shaywitz & Shaywitz, 2005; Park et al, 2012; Waldie et al, 2013). This finding is important in the present study since the recent literature in bilingualism has shown that bilinguals also present greater right hemisphere activation (e.g. Bailer, 2016; Park et al, 2012; among others).

In the study here mentioned data was collected individually with 54 participants: 20 typical bilinguals, 15 typical monolinguals, 14 dyslexic monolinguals, and 5 dyslexic bilinguals. In the first session, behavioral data was collected with the following tests: *Operation-word Span Test*; oral narrative in L2; reading proficiency in L2; and two subtests from the Woodcock-Johnson Battery: *the Letter-Word Identification and the Word Attack*

skills. In the second session, cerebral data was collected using EGG (Electroencephalogram) during the performance of the following tasks: *The lexical decision task*, and the main idea identification task. Both the behavioral data and the EEG data have been coded and are, at the present moment, under analysis and interpretation, together with the preparation of the publications based on the research.

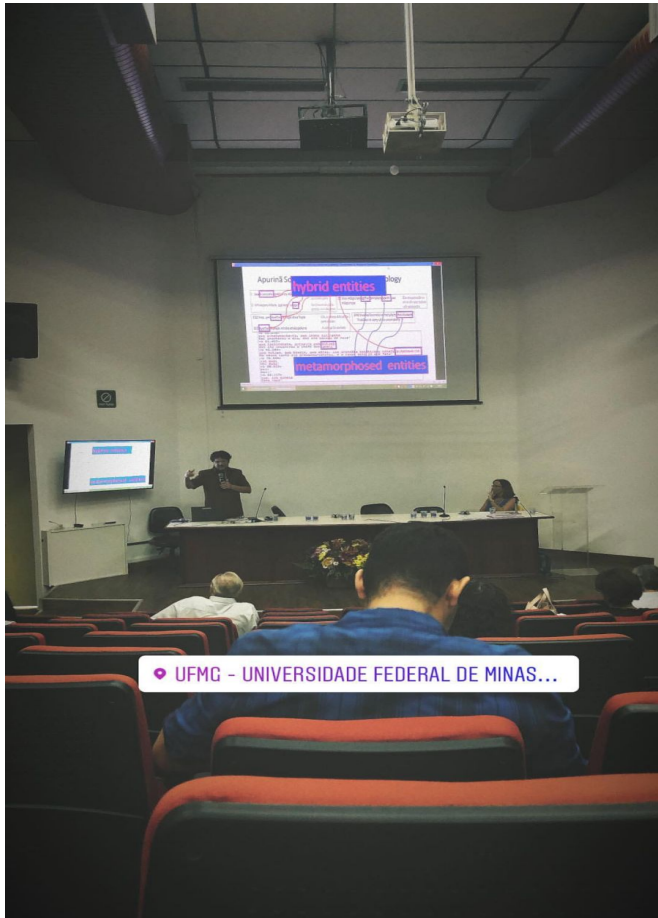
The relevance of the present research comes from the fact that there are only a few studies worldwide on dyslexic bilinguals, and also from the fact that, although we know many famous people who overcame dyslexia and succeeded in their area of expertise (e.g. Leonardo da Vinci; Albert Einstein; Pablo Picasso; John F. Kennedy; George Washington; Jim Carrey; John Lennon; Jamie Oliver; among many others), others still have a hard time finding their way through dyslexia.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*(5th ed.). Washington, DC.
- Bailer, Cyntia. (2016).*The neural processing of sentences in bilinguals and monolinguals: An fMRI study of Portuguese-English bilinguals and Portuguese monolinguals reading comprehension effects on brain activation*.Dissertation (doctoral) – Federal University of Santa Catarina, Graduate Program in English, Florianópolis, SC- Brazil.
- Dehaene, S. et al. (2002). The visual word form area: A prelexical representation of visual words in the fusiform gyrus. *Neuroreport*,13, 321–325.
- Gagné, E.D., Yekovich, C.W. & Yekovich, F. R. (1993). *The cognitive psychology of school learning*.New York: Harper Collins.
- Laing, E., Hulme, C., Grant, J. & Karmiloff-Smith, A. (2001). Learning to read in Williams Syndrome: Looking beneath the surface of atypical reading development. *Journal of Child Psychology and Psychiatry*,42(6), 729–739.
- Park, H.R.P., Badzakova-Trajkov, G. & Waldie, K.E. (2012). Brain activity in bilingual developmental dyslexia: An fMRI study. *Neurocase: The neural basis of cognition*, 18(4), 286-297.
- Shaywitz, S. E. & Shaywitz, B. A. (2005). Dyslexia (Specific Reading Disability). *Biological Psychiatry*, 57(11), 1301-1309.
- Waldie, K. E., Haigh, C. E., Badzakova-Trajkov, G., Buckley, J. & Kirk, I. J. (2013). Reading the wrong way with the right hemisphere. *Brain Sciences*, 3(3), 1060–1075.

International Symposium on Linguistics, Cognition and Culture

By Dionatan B. Cardozo



During March 13th to 15th, I attended the first International Symposium on Linguistics, Cognition, and Culture organized by the Faculty of Humanities and the Department of English at the Federal University of Minas Gerais and the Department of English and American Studies at the University of Postdam that was held at Belo Horizonte, Minas Gerais.

The purpose of the event was to share studies that aimed to reflect on the relationships between language, cognition and culture. The symposium focused on the field of cognitive, cultural, anthropological, interactional linguistics and sociolinguistics.

I presented an unpublished paper written for the discipline Bilingualism and Multilingualism Education taught by

Professor Mailce Borges Mota in which I present a review of the literature on code-switching embracing both sociolinguistic and cognitive perspective of the phenomenon. The aim was to discuss the research conducted so far and the implications on learning when students and teachers code-switch in a foreign language class.

The event was extremely well organized and the presenters were very well welcomed to the university. There was a simultaneous translation to all plenaries for the audience. At the coffee-breaks, we had the opportunity to talk to the presenters and socialize our work done more informally. Also, there was a welcoming dinner at a very traditional restaurant with the organizers of the event on the first day and we could get along with teachers from other institutions received from other countries.

The Ph.D. student Thayse Madella and the MA. student Elisa Silva Ramos write about their research in Literary Studies



Xicana Literature

By Thayse Madella

My research, “Xicana Nomadic Desires: The Politics of Space in the Borderlands,” aims to investigate the relationships between sexualities, subjectivities, and the Borderlands in Xicana literature. My advisor is professor Alessandra Brandão. The collective of the works I intend to analyze will, hopefully, form a literary cartography that maps out possibilities and creative forms of expressing desires and sexualities. In order to trace such a map, I will rely on the guidance of nomadic subjects, who see home as flexible and movement as positive. The works I focus on transit from a theoretical perspective usage to an object for literary analyses, so theories inform my readings of the corpus the same way my corpus shapes and moves theories as they negotiate epistemologies and meanings. I try, somehow, to break with a supposed hierarchy of theory and practice, bringing the daily living experience of resistance to the realm of theorization, as is recurrent in the works of Xicana authors. In this sense, breaking the limits of genres, such as literature and theory, is just one of the ways in which the authors I work with deal with borders. Other forms of dealing with limits range from the use of different language codes (English, Spanish, and Nahuatl), the transition from different cultural and social set of rules, and the development of stories drawing from indigenous, Mexican, and North-American background, to the act of rewriting myths, histories, and legends, in literary texts that encompass fictional novels, autobiographies, poems and short stories. As they move in-between, beyond and within borders, the constitution of their desires and sexualities moves as well, and I am interested in exactly these movements in the literary texts.

I haven't yet come to a final definition of my corpus, since I am still working on this movement between theories and literary works. This August I am moving to San Antonio, Texas, to study there for one academic year with a Fulbright scholarship, so I hope this experience will help me in defining this part of my dissertation. There, I will study at Trinity University, supervised by professor Norma Cantú.



Literature and Videogames

By Elisa Silva Ramos

Hello! My name is Elisa and I am currently working on my master's thesis entitled "From Literature to Videogames: The Case of Sherlock Holmes" under my advisor, Prof. Dr. Daniel Serravalle de Sá, at PPGI. My research concerns three main areas of study: adaptation, literature, and videogames, and it focuses on the representation of narrative elements such as characters, setting and plot structure in each of these media and on how these elements are transposed from literary texts into the videogame format. As a case study, I chose to work with Arthur Conan Doyle's Sherlock Holmes series for different reasons. As I have been reading these stories since I was very young, I have a high level of familiarity with them and I am in fact a huge fan of the narratives. Additionally, Sherlock Holmes is one of the most well-known characters all over the world, not only through Doyle's stories but also through its many different adaptations for media such as cinema, television, and videogames. Given the sheer amount of material involving the Holmesian imaginary and how diverse its adaptations can be, each person has a unique view of the series based on the works which they have or have not experienced before. Accordingly, I intend to discuss two videogame adaptations of Doyle's creation, *Sherlock Holmes: The Awakened* and *Sherlock Holmes: The Devils' Daughter*, in order to identify how they adapted some of the central elements of the literary texts and how these videogames may have influenced our understanding of the Sherlock Holmes imaginary. Furthermore, this research has allowed me to work with one of my biggest passions, which is the videogame media itself. Videogames have been a big part of my life since I was very young as well, and being so passionate about literature I could not but fall in love with the amazing stories being told in this media. Towards the future, I want to continue working on research which connects literature and videogames, expanding this ever-growing area. Working on my thesis is indeed a pleasure!

The Ph.D. student Marinho Bender and the MA. student Ana Flávia Boeing Marcelino write about their research in Linguistic Studies



Technology and EFL teaching

By Marinho Bender

Technology has become more and more part of the English teaching context, not only because it can offer a great variety of sources to foster learners' development and also because it is part of people's lives. In my academic history, back in the graduation, my final paper concerned about how to use YouTube as a pedagogical tool in the teaching of English. After that, when I entered the Master Program at PPGI in 2011, and working with professor Celso Tumolo as my advisor, I was interested in the perceptions learners who took the Letras – Inglês course in the distance modality had. Now again being advised by professor Celso, we have expanded our interests to multimedia learning. Based on the principles brought and extensively discussed by Mayer (2009), when learners are exposed to multimedia materials they use the information they are 'seeing' and listening in order to build mental representations of those. As Mayer explains, for a material to be considered multimedia, it has to present the combination of visual and oral input, that is, it has to be composed by images, or pictures and the voice of the narrator, being multimedia materials summarized as 'seeing + listening = better understanding = learning'. In relation to the teaching and learning of a second language (L2) Plass (2005), also works with multimedia materials as input enhancement, being my research interest particularly focused on how these kinds of materials can enhance the linguistic input so that learning the target-language can be fostered. As my research has not yet been reached a final design, some issues are still being discussed between my advisor and I, and hopefully, soon we will have the final version of my doctoral project and all the procedures for effectively studying multimedia materials in the context of teaching and learning English as an input enhancer.



Portuguese as a host language and Task-based approach

By Ana Flávia Boeing Marcelino

My master's research, I think, is the way I found to connect many areas in which I am interested. I have been a teacher of Portuguese as a Foreign Language for some time and with the help of my advisor, Prof. Dr. Raquel D'Ely, we were able to create a very fruitful network between this teaching context and the field of task-based approach. In the current phase of my research, I have just finished collecting data on this very special setting, which is the classroom of Portuguese as a Host Language. In this context, learners are what theory calls *involuntary* language learners (Long, 2015), our students are usually forcibly displaced immigrants and/or refugees who are trying to find in Brazil a new and better life. Because of this specificity, the teaching of a language has a fundamental role in how this population is going to be inserted in our society, and therefore it is very much concerned with teaching the students language that will allow them to communicate immediately in some situations they need the most.

The other field of study which was brought to me through the study of teaching and learning EFL, is the Task-Based Language Teaching (TBLT), which theoretical bases I found to fit perfectly to the context of teaching and learning Portuguese as a Host Language. Thus, my study wants to first, investigate what are the situations in which this population needs the language the most, through what is known as *needs analysis*; second, investigate the effects of task-based language lessons in the students oral performance of a few tasks; and third, investigate how the teacher and the students perceive the classes based on this teaching approach. After four months of observation, field note taking, interviews, video and audio recordings, now it is time to sit down and analyse all the data gathered. I was looking forward to this phase to come.

Three Lessons

Once I have heard somewhere or from someone that we, who decide to pursue a teaching career, are going to be a combination of the professors we encounter along our educational path. I want here, to graph a little of my experience with my professors in my first semester at my masters.

Looking back at the day of my first class, I recall my curiosity on what would be different from the previous 4 years which I had spent mainly at building A, during my major.

Building B was already a little familiar to me, yet I sensed this fresh environment as calmer, less crowded, less colorful, and mainly occupied by unknown faces. After my first week of classes, I discovered that my impressions from this new site would totally vanish from my concernings, once the atmosphere set in the classes would even make me forget where I was sitting.

The first day, the first lesson, there I was, expecting a cold shower about the hardships of being in a graduate program. I was offered the totally opposite. Through honest and kind words we, students, received from our professor wise pieces of advice on how to conduct our studies in an academically healthy way. The hierarchical position between professor-student was dismantled, it felt as if we were talking to a friend. As Freire puts, letting go of our authoritarianism does not imply on lack of authority as a professor. I learned from this teacher a more humanistic approach towards my colleagues and moreover to my subject matter of research. We were constantly asked to reflect on the justification and relevance of the kind of studies we were starting to engage in. Deadlines and expectations were still placed upon us, but in a democratic way, there was always open space for debate. Our background readings and experiences were taken into account to help us enhance our understanding of new concepts. From this professor, I got to recognize the power to read at whim. I learned not to be ashamed by the fact that the Harry Potter books were mainly the first contact I had with literature, and maybe it is due to this sequence that today I am keen on exploring other sorts of writings. Thank you for your amazing, untraceable digressions, professor.

In my second class, I began to understand the responsibility of being a serious scholar in our academic context. I was mesmerized by the bond this professor had with their field of study. I felt challenged every meeting to improve my abilities, in order to deal more



Marcos Neto de Cordova
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efficiently with the bibliography proposed for our course. My colleagues, mostly already in their doctoral studies, had already advanced their understanding of the complexity within the context which we were diving in. I was naturally less acquainted with the terminologies and concepts that regularly were in the domain of my peers. That is when the aspect I most admired from this professor came into light. I was given several books which were carefully selected by our professor as an endeavour to consolidate crucial groundings to my studies in that area. Knowledge has to be shared to be valuable, and I thank this professor for showing me the wonderful activity that is to be an academic advisor. Since our first meeting, this professor took us as scholars, already exercising the craft, and we were expected no less than that.

My experience with my third professor taught me how inseparable my personal self is from what I do here in academia. Today, after the semester is over I recall one of the guiding quotes at the top of our syllabus, “The master's tools will never dismantle the master's house.” by Audre Lorde. At first, I struggled to understand what this author meant. As our professor guided us through the writings of resistance from several women I started to question what kind of scholar I want to be, and furtherly who I am. Among the texts proposed I had the opportunity to read Conceição Evaristo’s *Insubmissas Lágrimas de Mulheres*. I was invited to grasp the powerful effect of Conceição’s *escrivivência*, which promised not the veracity from stories being recollected but the genuine representation of the humanity within those black women who are interviewed during the narrative. Conceição states “*a nossa escrevivência não é para adormecer os da Casa Grande, e sim para incomodá-los em seus sonos injustos*.” The experience I had with this text goes in hand with the overall practice encouraged in this discipline. Our discussions delineated the role of resistance among the inequalities of our society - gender, race, class. We were given new tools to fight oppression, and from what I understood, the fray of this battle takes place in every action of our personal and professional spheres. I am obliged for the opportunity to reflect upon my privileges and for the urgent call to assume an approach that aims at dismantling the master’s house, without constructing new hierarchical oppressive walls. Through our *bridgings*, we became stronger and more aware of our role as academics, and I thank this professor for that.

A few weeks ago I submitted a final paper for one of the courses I was enrolled at. Today, as I was quickly running my eyes at such a document, I could already identify many flaws and possible room for improvement. That is the beauty of what we do here. There is a constant clash between the Marcos from the first week of his masters and the Marcos of today. I look forward to what is yet to come, and I want to leave a massive thank you to my

professors from this first semester, especially for showing me that education is indeed Freedom, and it gives us the agency to believe and fight for a fairer world.

Upcoming Events

- **X Simpósio Internacional de Estudos de Gêneros Textuais (SIGET)** the event has as a theme *Textual Genre, Discourse, Language Practices, and Southern Voices* to take place at Universidad Nacional of Córdoba, Argentina from September 16th to 18th, 2019.

<https://xsiget.webnode.com>

- **III Encontro de Estudos da Linguagem and VII Encontro Internacional de Estudos da Linguagem (Enelin)** 50 years of "*Análise Automática do Discurso*" to happen at Univás, Pouso Alegre, Minas Gerais. The event will happen from October 9th to 11th, 2019.

<https://www.cienciasdalinguagem.net/enelin>

Call for papers

- **CADERNO DE LETRAS** (Qualis B3) from Federal University of Pelotas (UFPEL) is open to receive articles for issue 34 in the field of Literature studies and issue 35 for thematic dossier entitled Bilingualism and Multilingualism to be published in the second semester of 2019. The deadline is August 25th, 2019.

<https://periodicos.ufpel.edu.br/ojs2/index.php/cadernodeletras/index>

- **SIGNUM: ESTUDOS DA LINGUAGEM** (Qualis B2) from State University of Londrina (UEL) is open to receive articles for issue 22. The deadline is July 30th, 2019.

<http://www.uel.br/revistas/uel/index.php/signum/>

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