Where does psychology and second language acquisition research connect? An interview with Zoltán Dörnyei

Keywords

Zoltán Dörnyei, second language acquisition, psycholingusitics, emotion and learning, Dynamic Systems Theory

心理言語学とは何か、そして認知言語学とはどう異なり、なぜ最近注目されているのか。Zoltan Dornyei はノッティンガム大学の教授で、今、この研究の最先端にいる。彼は最近の著書 The Psychology of Second Language Acquisition の中で、今世紀にSLA研究者が直面しなくてはならない新たな課題について述べ、また、臨界期仮説（感情と学習の関連性）、個人差（暗示的・明示的二分法）、そしてDynamic Systems Theoryについて詳述している。このインタビューではこれら最近の研究を概観し、彼の著書を紹介する。

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What is Psycholinguistics? How does it differ from Cognitive Linguistics? Why is this general area of linguistics in the limelight these days? Dr. Zoltán Dörnyei is a professor at Nottingham University who is at the forefront of this research. He recently wrote a book titled, *The Psychology of Second Language Acquisition* (Dörnyei, 2009). In it, Dörnyei discusses the newer challenges SLA researchers in this century need to come to terms with. He details research of the Critical Period Hypothesis, the connection between emotion and learning, Individual Differences, the implicit/explicit dichotomy, and Dynamic Systems Theory. This interview provides an overview of such recent research and serves as an introduction to his book.

Robert Murphy (RM): I just finished reading your fabulous new book, *The Psychology of Second Language Acquisition*. What was the impetus for writing it?

Zoltán Dörnyei (ZD): When I started my PhD studies in Applied Linguistics in the mid-1980s, I was placed at the Department of Psychology of Eötvös University (Budapest, Hungary) under the guidance of an eminent psycholinguist, Professor Csaba Pléh. Consequently, all my subsequent work on SLA became inevitably influenced by psychological theories. Yet even I was unprepared for the paradigmatic earthquake that shook the field of Applied Linguistics in the new millennium in terms of the sudden emergence of the multitude of new psychological technical terms, measurement procedures and theoretical orientations that suddenly appeared in every forum. Our field, which used to be dominated by linguistic and educational theories, has been invaded by psychology – in the preface of my book I refer to this invasion as the *psycho-blitzkrieg* – and we had better get used to this new situation because it is unlikely to change in the near future. Recent technological developments, such as the introduction of various cutting-edge brain scanning and imaging procedures, have made it possible to create direct observable links between our mental processes and our language use. As a result, linguistics and psychology have started to converge under various new academic labels (e.g. psycholinguistics, neurolinguistics, cognitive linguistics) within the broad domain of cognitive neuroscience. Indeed, if you attend international conferences in the field, you cannot help noticing that some of the most exciting and forward-pointing contemporary research is situated at the interface of linguistics and psychology. Therefore, in order to be able to remain up-to-date, applied linguists have to become familiar with the essence of the psychological approach – hence the idea and motivation for this book.

RM: What is psycholinguistics? How does it differ from cognitive linguistics?

ZD: The field of psycholinguistics took off after the 1957 publication of Noam Chomsky's book *Syntactic Structures*, and the first decade of psycholinguistic research was largely taken up by developing theories of language processing based on Chomsky's generative grammar. This scope was broadened at the end of the 1960s by the influence of information processing theory (this was when the *mind-as-computer* metaphor was introduced), and, as mentioned above, the field further expanded in the 1980s and 1990s with the spread of neuroimaging techniques. In many ways, psycholinguists and cognitive linguists have been pursuing similar goals, namely, to expound the psychological reality and the cognitive mechanisms underlying language structure and use. Yet the particular foci and research methods of the two disciplines differ: Most cognitive linguists would consider themselves linguists first with an interest in cognition, while most psycholinguists would regard themselves primarily as psychologists with an interest in language. Accordingly, while cognitive linguistics has adopted the standard research methodology of linguistics, psycholinguistics has been drawing on the research techniques of experimental psychology.

RM: With this book you have filled a gap that seriously needed filling. It is a wonderful book for any second language teacher or researcher. Who was your main target when writing this book?

ZD: I am really pleased that you liked the book. Who was my target audience? Quite frankly, myself. That is, I wrote the kind of book I would have liked to read if it had existed. In the 1980s, I started out as a language teacher and then a teacher trainer, and although I have by and large become a researcher since then, I am still a teacher at heart. Therefore, when designing this book I followed my instincts and assumed that if I found a psychological area interesting and relevant to SLA, other colleagues might also find it useful for their own practice. This is, in fact, how I have written most of my books in the past. And although I do not pretend that the topics covered by the book are easy, I tried to make the style as accessible as possible. Furthermore, the final chapter of the book (Chapter 7) specifically concerns classroom applications.

RM: In your book you discuss a few other names for similar and overlapping fields. Which nomenclature would you prefer to represent the future of your field? Why?

ZD: This is a very good and important question, and I have specifically addressed this in the very last paragraph: "Regrettably, just as I thought I had finally succeeded in appropriating my psycholinguistic persona, the term 'psycholinguistics' started to fade away and evolve into a new emerging discipline that can be broadly labelled 'cognitive second language neuroscience'. Which, of course, means that my quest for a professional identity is to continue! I suspect that I am not alone in this state of disorientation—most second language researchers will have been affected by the ongoing academic paradigm shift (termed *psycho-blitzkrieg* in the Preface). Perhaps one way of making a virtue of this highly uncomfortable situation is to claim that 'it is the journey that matters, not the getting there'. And to conclude on a positive note, let me cite a Dutch proverb that I have found on the Internet: 'He who is outside his door already has the hard part of his journey behind him'. (Unfortunately, several Dutch friends and colleagues insist that this proverb does not exist in Dutch.)" (p. 303)

RM: What are the current challenges of second language researchers?

ZD: The most important challenge in our field is, in my view, that the typical person drawn to the field of second language instruction is often not the kind of person who has the interest/time/energy to dig deep enough into psycholinguistics to be able to take the field forward in this area. There is, of course, a new breed of young psycholinguists specialised in bilingualism, but they often do not have any practical classroom experience or teaching interest. To illustrate this potential problem with regard to my book: Although I really believe that *The Psychology of Second Language Acquisition* contains essential knowledge for the next generation of professionals in our field, I have doubts about how many MA and PhD students will actually make the considerable investment to engage with this new approach.

RM: I have always thought that the mind/brain should be centre stage in the study of SLA. However, much of SLA research still suffers from *black box syndrome*. Why do you think that is? What is the remedy?

ZD: In the past the black box syndrome had an obvious reason: We simply didn't know what was going on in the brain. With the emergence of brain scanning and neuroimaging techniques, this situation has seemingly changed – but has it? In my book I tried to offer a balanced view of neuroimaging, also describing some serious concerns with the technology that is so often not expressed in professional publications. As I concluded: "The purpose of this fairly detailed overview of various issues and concerns that have been raised with regard to the validity of neuroimaging methods was not the desire to undermine this research direction and encourage readers to disregard its findings. I have made it clear above that in the absence of powerful alternatives, neuroimaging is likely to remain the driving force in the development of cognitive neuroscience. Instead, my objective was to show that as with any other research method, neuroimaging techniques have both strengths and weaknesses and we should not take everything for granted, even if it is accompanied by colourful images of the brain. It seems to me that the current tide of intellectually thin papers dressed up in neuro-techno language is worrying and I have yet to be convinced that the neuroimaging studies conducted in the field of second language studies can deliver the much-awaited breakthrough in our understanding of psycholinguistic phenomena" (p. 76). Thus, we are in a curious state with regard to the black box syndrome: We still don't know that much about what is going on within the box, but we are so tantalisingly close... So perhaps we should speak about a *grey box syndrome* now?

RM: What message do you want to get out to second language teachers and researchers?

ZD: I thought a lot about this issue while writing this book, and one day I came up with a metaphoric summary that seems to capture my main message well: "All in all, this book is not unlike the diary of an explorer. I have done my best to visit what I thought were the most exciting and exotic places within this part of the (intellectual) world, and during my exploration I made extensive field notes to record and organize my experiences. *The Psychology of Second Language*

Acquisition is in many ways the edited collection of these notes. As with other diaries, some of the insights are more discerning than others, and some might turn out merely to outline intriguing states of affairs without getting anywhere near to the bottom of those. For many readers, the region explored is likely to be a strange land, full of odd and perhaps menacing elements. Yet, the inescapable truth is that SLA researchers need to become skilled rangers in these territories – the psychological aspects will not go away but will take up an increasingly central position within the study of the acquisition of a foreign or second language. I do hope that this book will be useful in gathering the right equipment and gaining confidence before embarking on the next expedition" (pp. xii-xiii).

RM: Your book discusses the Critical Period Hypothesis (CPH) in detail. CPH has been a controversial topic for a long time. What is your current take on it?

ZD: The main lesson I learnt from my review of the literature is that there are no simple and unambiguous answers when it comes to CPH. For example, the *younger is better* principle – with which most people would probably agree – is totally inaccurate when we learn a foreign language in a school context; there the older is often better! When we approach the age issue in SLA, we inevitably face a complex system with multiple powerful factors and components that can form a number of compelling combinations: neurobiological and cognitive processes take place in the brain; social trajectories are activated by different ages of arrival in immigrant situations; and strong interferences are to be expected both from our L1 system and our personal characteristics. Accordingly, I have come to believe that the age issue involves the most complex system dynamics in the whole SLA domain.

RM: Why should SLA study incorporate the study of emotion? What is the connection between emotion and learning (beyond motivation)?

ZD: This is a huge topic, but the current situation is sadly straightforward: Apart from a few exceptions (e.g. the work of John Schumann, Peter MacIntyre and Jean-Marc Dewaele), emotions have been by and large neglected in the field of SLA. This is all the more surprising given that: (a) classrooms are venues for a great deal of emotional turmoil; (b) emotions are known to be salient sources of action (e.g. when we act out of fear or anger or happiness); and (c) the process of language learning is often emotionally highly loaded for many people. For these reasons, in my book I propose that we completely rethink the role of emotions in SLA, and in the discussion of learner characteristics in Chapter Five I treat the emotional system as equal to the cognitive and motivational systems.

RM: I applaud your bold synthesis of Dynamic Systems Theory (DST) into your book. Why is DST relevant?

ZD: I am genuinely pleased that you think that a focus on DST is a positive aspect of my book. For me this has probably been the greatest discovery of the past five years: DST concerns complex systems that have many interacting components, and the main tenet of the theory is that because these components are interrelated and yet also have their independent developmental life, their behaviour cannot be described in the linear, cause-effect way that we like to speak about things in the world (e.g. motivation leads to achievement). Instead, we have to acknowledge that everything depends on the overall constellation of factors. This is why sometimes a considerable amount of input into the system produces only minimal change (something we unfortunately often observe with language learners), whereas at other times a much smaller event can have a disproportionately huge impact (e.g. when suddenly some unexpected coincidence changes one's whole world view). DST is intended to deal with such situations, and in the natural sciences it is already a leading research paradigm. My 'discovery' was that almost everything in the field of SLA is best conceived as a dynamic system; I am putting the word 'discovery' in inverted commas because it was

not me who came up with these ideas – I was merely following the advice of other scholars in the field, most notably that of Diane Larsen-Freeman, Lynne Cameron, Nick Ellis and Kees de Bot. Their recent publications convinced me that DST might turn out to be the dominant framework for future research in SLA.

RM: What is the relevance of Individual Differences (ID)?

ZD: All of us can learn a first language – our mother tongue – but many of us will fail with learning a subsequent language. I believe that the best explanation for this variation has so far been given by ID research, the study of various learner characteristics. Having said that, I also believe we should radically reconsider what IDs might involve, and therefore I devoted a whole chapter of the book (Chapter 5) outlining a new, dynamic conception of learner factors.

RM: You deliver potent points regarding implicit/explicit learning. Please give us an overview.

ZD: The explicit/implicit dichotomy appears in many forms in research on language acquisition, and it has been frequently applied to SLA research as well. The gist of the explicit/implicit contrast is clear: *explicit* has something to do with consciousness, while *implicit* is associated with unconscious, automatic or indirect processes. There is general agreement amongst scholars that infants acquire their first language primarily through implicit learning, but later we seem to be running into some obstacle in this respect. For some reason, the implicit learning processor that we used so successfully before does not seem to work efficiently when we want to master an L2 at a later stage in our lives, especially if the learning takes place in a school setting. This makes it necessary for second language learners to draw on the additional resources of various explicit learning procedures. As a result, the real challenge for foreign language teaching in our century will be to specify the nature of the optimal cooperation between explicit and implicit learning processes, for example by describing how directly and systematically the various components of the L2 code (e.g. various rules or lexis) need to be dealt with in language classrooms.

RM: What are your future plans?

ZD: I am now committed to pursuing my research – including my research on L2 motivation – within the framework of DST. However, a common concern amongst scholars who acknowledge the importance of this approach is the uncertainty of how to conduct empirical studies in a dynamic systems vein. There are obvious difficulties with modelling nonlinear, dynamic change; observing the operation of the whole system and the interaction of the parts rather than focusing on specific units in it; and replacing conventional quantitative research methodology and statistics with alternative methods and tools. Currently there are few specific guidelines or templates available to follow, but it is my hope that over the next few years we will be able to make considerable inroads into bridging this gap. This is the challenge that occupies my thinking most at the moment.

Reference

Dörnyei, Z. (2009). *The Psychology of Second Language Acquisition.* Oxford: OUP.

Robert S. Murphy is a doctoral student in Cognitive Development and Applied Lingusitics and has an MA in TEFL/TESL from the University of Birmingham. He is currently working with WIDE World, Harvard Graduate School of Education and other institutions in bringing neuroscience and psychology closer to SLA research in Japan.