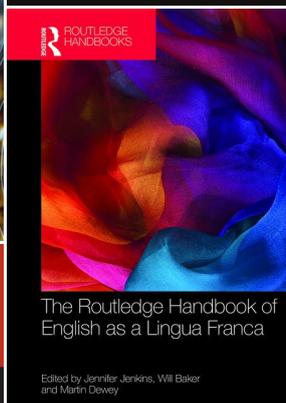
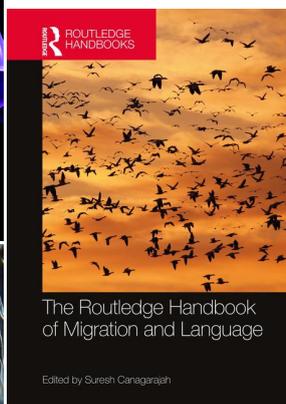
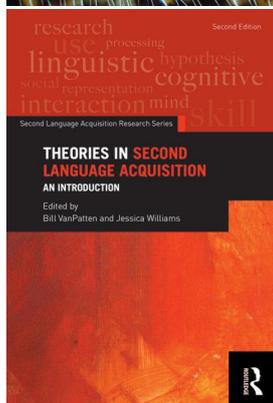
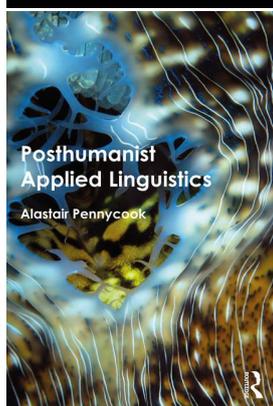
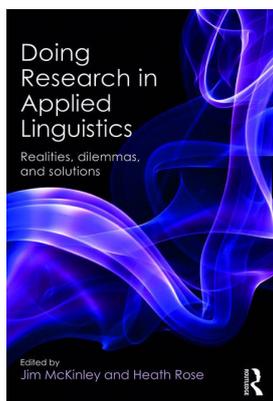


ROUTLEDGE ■ TAYLOR & FRANCIS

Taking Risks in Applied Linguistics

A Routledge Chapter Sampler

Contents



1. Introduction - Realities of doing research in applied linguistics
From: *Doing Research in Applied Linguistics*, edited by Jim McKinley and Heath Rose



2. Introduction - The nexus of migration and language: the emergence of a disciplinary space
From: *The Routledge Handbook of Migration and Language*, edited by Suresh Canagarajah



3. Introducing posthumanist applied linguistics
From: *Posthumanist Applied Linguistics*, by Alastair Pennycook



4. Introduction
From: *The Routledge Handbook of English as a Lingua Franca*, edited by Jennifer Jenkins, Will Baker and Martin Dewey



5. Input Processing in Adult SLA
From: *Theories in Second Language Acquisition*, by Bill VanPatten, edited by Bill VanPatten and Jessica Williams



20% Discount Available

As a BAAL delegate, you can enjoy a 20% discount across our entire range of Linguistics books. Simply add the discount code **BAAL1** at the checkout.

Please note: Valid until 31st December 2018. This discount code cannot be combined with any other discount or offer and is only valid on print titles purchased directly from www.routledge.com.

Chapter 1

Realities of doing research in applied linguistics

Heath Rose and Jim McKinley

When novice researchers are taught about research methods, they are usually only ever exposed to ‘ideal’ research designs, where all avenues of validity, reliability, generalizability, and ethicality have been carefully contemplated and accounted for. When beginning their data collection, however, things may not go according to these perfect plans: they cannot get the representative sample they were hoping for, participants drop out from their longitudinal study, an institution decides not to grant them access to their planned research context, working within a vulnerable community proves more difficult than expected, or they struggle to maintain a positivist, objective stance in an area of research in which they have invested considerable personal and emotional energy. There are innumerable ways in which a research design faces obstacles in the research process, no matter how carefully a project was planned. In these situations, a researcher may be left wondering how to salvage the project from failure.

The idealistic nature of research methods books

When referring to research methods literature, a researcher concerned about his or her project’s feasibility finds little comfort in the ideological nature in which many research methods textbooks are written. The wording of many methodology textbooks can be interpreted to suggest that nothing other than the most stringent research design will stand up to the rigor of academic scrutiny. In these books, each research method, data collection instrument, and analytical tool is meticulously presented with a long list of threats to validity and reliability if not carried out to the exact plan. For example, the dangers of a low response rate to questionnaires is a topic often covered in such books, and this is usually presented alongside advice to help improve response rates. Dörnyei (2007, p. 113–114), for example, offers helpful advice for researchers to effectively administer the questionnaire to improve the response rate. However, there is little advice offered for situations when a low response rate occurs in a project, despite best efforts

in administration. A novice researcher in this case could easily be left feeling that his or her project has failed.

Mackey and Gass (2005) discuss the logistical issues of classroom-based research in terms of obtaining quality audio recordings for data analysis. When taking into account the issues of human interference, classroom movement, and learner interest in the equipment, the authors' solutions include multiple microphones, video-recording equipment, movable recording equipment, and bringing in the equipment weeks before the actual observation. Such suggestions, while useful in preempting obstacles, turn a one-class observation design into a multiple-week-long, audio-visual production. For novice researchers, such intrusion might not be logistically feasible, and compromises have to be made. There is little suggestion for researchers to work around such logistical issues to, for example, deal with poor-quality audio if other unforeseen factors intrude on the observation day.

It is important to note, however, that Dörnyei (2007) does suggest a pragmatic approach to carrying out a research project, albeit in a brief manner. He writes,

It is my impression that researchers are often ashamed of the compromises that they need to make, not realizing that making compromises is part and parcel of being a researcher.

(p. 309)

We fully concur with Dörnyei's assessment here, particularly in the context of novice researchers who are easily led to believe only the most perfectly planned and executed research project is acceptable in the field. This book aims to expand on this notion in its presentation of research projects, which had to overcome obstacles and make compromises in order to achieve successful results.

Mackey and Gass (2005) also emphasize the nature of classroom-based research as a "particularly complex and multifaceted endeavor that must be planned carefully" (p. 212). They do offer helpful, practical advice in the creation of contingency plans when things go wrong, but our book expands on this *preventative* advice in its offer of *curative* advice for situations when methodological issues do arise and must be dealt with during the research process. We would also argue that Mackey and Gass's depiction of the classroom as complex and multifaceted can be expanded into other contexts where applied linguistics researchers collect data, such as workplace environments and social spheres – indeed any research site that exists in the messy real world.

The idealistic nature of published research

Published research further perpetuates a stereotype that obstacles in research are anomalies, rather than the norm. Journal articles often document their research designs with scientific precision, and a reader may be led to believe

data were collected and analyzed with few problems in the process. Limitations of a project are always discussed, of course, but they are presented in a way that the reader would believe that the researcher was aware of these limitations from the outset of planning and had accounted for them before data were collected and analyzed. If a researcher had planned on collecting 500 samples, but managed only 250, the original target may not ever need to be disclosed, but instead there might be a throwaway statement in the conclusion of the paper, which stated that because of the small sample size, further research might be needed. If a researcher were denied access to his or her prime research site, the paper might not allude to the fact that the data collection site was the researcher's second choice. More likely, the paper would justify the new site according to slightly altered criteria. Likewise, multiple case studies become single case studies in the write-up process, or the importance of certain research instruments in the research design is emphasized or downplayed according to the perceived value of the data that was yielded. Researchers are not being deceitful, but rather may wash over the minor details of methodological issues in projects for fear that it will detract from the data they were able to collect and report on. In the presentation of published research as the 'ideal,' the reader is often made oblivious to the methodological journey of the project and of the compromises made along the way. All of these alternatives are certainly reasonable solutions to immediate problems, but too often they go unreported.

In Marshall and Rossman's popular *Qualitative Research Methods*, now in its fifth edition (Marshall & Rossman, 2010), journal articles are described as "pristine and logical," in contrast to real research, described as "confusing, messy, intensely frustrating, and fundamentally nonlinear" (p.55). They draw our attention to some insightful advice provided for doctoral students 35 years ago by Bargar and Duncan (1982) in which they describe how, "through such highly standardized reporting practices, scientists inadvertently hide from view the real inner drama of their work, with its intuitive base, its halting time-line, and its extensive recycling of concepts and perspectives" (p.2). This kind of attention to the dramas of research is unsurprisingly something doctoral students are advised to avoid. But certainly, this purposeful imbalance of focus comes at a cost for future researchers.

Furthermore, published research almost always focuses on the implications of the *findings* of the study, and almost never discusses the *methodological* implications of the research process itself. It is our conviction that the methodological implications of any study play an equally important role in shaping our understanding of research in the field of applied linguistics as the content-related findings do. They help to shape our understanding of the project and build upon it when carrying out future research in the area.

This book aims to rectify the imbalance in research methodology literature through exposing the research design and implementation obstacles

that applied linguists and educational researchers face in many of our research projects. The projects discussed in this book were all carried out by experienced, respected academics in their fields. The projects outlined in these chapters all resulted in published research papers, despite the obstacles encountered along the way in the research process. In this book, the projects are presented with a shift in focus from their original publication on the content of their findings to the methodological implications of the study. By bringing the methodological obstacles to the forefront, we can better build an understanding of best practices in overcoming similar research problems in the future.

A focus on applied linguistics and language education research

The book focuses on applied linguistics and language education research because these fields occupy a shared space in academia and thus encounter similar problems in the research process. Applied linguists and educational researchers often deal with the ‘real world’ rather than sanitized environments. Many of the methodological issues encountered by applied linguistics researchers very much stem from the fact that applied linguistics is, in itself, a problem-based discipline. We concur with Grabe (2010, p. 35) who argues,

The notion that applied linguistics is driven first by real-world language problems rather than by theoretical explorations of internalized language knowledge and (L1) language development is largely what set the field apart from both formal linguistics and later from sociolinguistics, with its own emphasis on language description of social variation in language use.

While the exploration of real-world research problems has obvious benefits in its practical implications, the real world is messy, and the potential for something to go wrong increases exponentially with each added uncontrollable variable. A sudden school assembly can ruin a planned classroom observation and result in the object of the research being skipped completely in the curriculum. The end-of-term essay that was going to become usable data for text analysis might suddenly be replaced by a presentation. A company that had agreed to distribute your questionnaire to its employees might suddenly undergo restructuring, and the offer to distribute your questionnaire might easily slip through the cracks. Most research in educational contexts in particular is “pretty messy, or at least complicated” (McArthur, 2012, p. 428), thus when things go wrong, it is to be expected.

Applied linguistics and educational researchers also often deal with people, which can be the messiest part of real-world research. A common cold

can decimate student numbers on the day of important classroom-based research. An overly controlling and chatty group member can destroy a speech sample intended for discourse analysis. A gatekeeper to an important research site can simply decide to exercise his or her right to not take part in your study, simply because the person cannot be bothered dealing with the paperwork or organizing to meet with you. There are immeasurable ways in which a carefully planned research project can go awry in the real world, and these are all too often glossed over in published papers. They lie in the periphery of research methods books, despite being situated as real obstacles at the forefront of the research process.

Other researchers in the past have focused on the messiness of social research, and the current volume builds on the foundations of such work. Mellor (2001) details a very frank account of his practitioner-based research project in the field of educational psychology, providing an ‘honesty trail’ of the problems encountered and mistakes made. He argues that the provision of this honest account formed an essential part of his study’s strength, even if by conventional definitions highlighting these issues posed a threat to the project’s validity. A similar perspective can be found in Cook (2009, p. 290), who argues,

If an indicator of our successful work as action researchers is the integration of the development of practice with the construction of research knowledge, then we must provide honest accounts of that process and incorporate mess as an integral part of a rigorous approach.

We would concur with Cook’s assessment, but argue that honesty in incorporating mess as a part of rigorous practice be extended beyond just action research, as it is an integral part of social science research in general, thus also extending to much applied linguistics research. This book aims to expand on such work and organize it in a central volume. The strength of many voices will, hopefully, showcase the realities of social science research that others have touched on in published research papers.

An overview of the book

This book aims at bringing problems in applied linguistics research to the forefront in its presentation of research projects by experienced, established researchers, and up-and-coming researchers alike. Accordingly, each chapter focuses on one isolated problem, or area of research, and uses a real case study of published research to illustrate how the problem was circumvented.

The obstacles outlined in this book are presented in five main sections. Each part discusses a shared position in the research process, starting with the planning stage then moving into data collection, analysis, and reporting.

Section one: Research planning

The first section examines obstacles in research planning, which include deciding who to research, dealing with shifts in theory in the field mid-project, positioning oneself as an outside researcher and negotiating complex and collaborative projects.

Ryuko Kubota takes on the challenge of selecting who to study with a particular focus on the ethical issues and politics of researching privileged populations, i.e., “studying up,” populations that include the researcher, i.e., “studying across,” or underprivileged populations, i.e., “studying down.” Drawing on her experience working with disadvantaged migrants, and in consideration of neoliberal ideologies, Kubota found herself faced with “moral discomfort” coming from an elitist position in relation to her potential participants. To overcome this obstacle, Kubota changed her target population and took advantage of establishing rapport with the participants.

Next is Heath Rose’s response to dealing with theoretical shifts in research design – reflecting on the nature of applied linguistics research that can change drastically in a short period of time. As a researcher on a project in which changes in research paradigms meant the conceptual framework was suddenly found to be obsolete, he was faced with the option of ignoring the changes altogether, or integrating them into his research design. Rose shows an analysis of the options as an important part of the process in overcoming such an obstacle and sustaining the research project.

In consideration of researcher positionality, Jim McKinley deals with the problem of approaching a research context as an outsider faced with the challenge of choosing between developing a situated qualitative analysis or establishing researcher objectivity, both of which were quickly dismissed as viable options. Instead, McKinley managed to overcome the problem by moving beyond positivism and adopting constructionist theory to allow his position as an outsider to inform the research rather than invalidate it.

The last chapter for this first section of the book, led by Daniel V. Bommarito, explores the issues related to negotiating multiple objectives in collaborative research projects. The chapter, which is based on a project led by Paul Kei Matsuda, is presented along with a group of prior and current doctoral students including Jianing Liu, Juval V. Racelis, Taimin Wu, Jing Xia, and Yuching Jill Yang. The chapter deals with a multilayered research project, with a student-led collaborative study at the core, an observation-based study conducted by Bommarito as a secondary objective, and, finally, a third layer that was Matsuda’s objective of an academic professional development opportunity for his students. With this complex research structure, obstacles were expected, but these researchers show that careful planning, flexibility, and open communication allow for different objectives in collaborative projects to be achieved.

Section two: Data collection

The second section outlines problems that arise in the data collection phase of a research project. Problems in this section include dealing with participant attrition in longitudinal studies and low response rates in qualitative and quantitative studies.

The first chapter in this section looks at adjusting to contextual constraints when there are methodological shifts in a research project. John Hedgcock and Heekyeong Lee take on the problem of when the research design falls short of what it was intended to achieve. They describe their experience of adopting alternative data collection methods and strategies in order to maintain their original research focus and questions. The decision required reformulation of subsequent phases of the research process, and Hedgcock and Lee show how strategies to respond to the need to make changes during data collection, even reconceptualizing the research problem, can lead to achieving the research aims.

Next, on the significant problem of participant attrition in longitudinal ethnographic studies, Corinne Seals manoeuvres her way through various issues such as location access and participant commitment, arriving at some important, harsh realizations about the realities of such studies. Seals draws on her experience of utter devastation at the loss of key participants in her study, pointing to creative and flexible approaches that allowed her to actually find an advantage in what would have otherwise been project-ending challenges.

A major problem in quantitative data collection is a low response rate. Averil Coxhead shares her own experiences dealing with this difficult challenge, overcoming it, and going on to publish numerous articles from the study. She explains that dealing with such challenges was familiar, as in the development of her academic word list, gaining access to particular texts caused delays. While her solutions to the low response rate involved a longer timeline and additional recruitment, Coxhead shows that such strategies can effectively sustain the research project.

Completing this section is an insightful chapter on dealing with multilingualism in quantitative research. As recognition of the value of new perspectives on multilingualism and crosslinguistic influence increases, this chapter by Gesica De Angelis is timely, as she describes the obstacles faced in such complex research paradigms and describes her experiences in overcoming those obstacles. She provides important strategies for conducting research with multilingual individuals while preventing a subject selection bias in the design and avoiding such pitfalls as the inconsistent treatment of data in such quantitative studies.

Section three: Researching vulnerable groups

The third section explores particular issues that arise in applied linguistics and education, focusing on vulnerable groups with whom we often work. While we acknowledge many members of these groups may not

think of themselves as ‘vulnerable,’ the fact remains that dealing with certain research populations can bring ethical and logistical challenges to the data collection process. Contexts discussed in this section include working with children, conducting ethnographic research with refugees, exploring learners with disabilities or illnesses, researching within deaf communities, and using one’s own students as research participants.

Opening this section is Victoria Murphy and Ernesto Macaro’s chapter on researching children. Based on their experience conducting a recent study, they highlight seven obstacles they faced and offer solutions for overcoming them. The obstacles focus on research assistants, sampling frames, research sites, recruitment and informed consent, data collection spaces, participant attrition, and feedback to parents and teachers. Murphy and Macaro explain that this is not an exhaustive list, but their review of challenges shows that careful consideration and implementation of studies with children can and do result in successful research projects.

On conducting fieldwork among adult refugees, Lorna Carson provides a very honest reflection on what it means to work with participants who often face difficult and uncertain circumstances. The refugee learners in her doctoral research saw their English language education very differently, from essential to their survival to simply a way to pass the time. Such uncertainty and inconsistency in the stakes involved presented a number of challenges – particularly informed consent, confidentiality, and disclosure of personal details – that Carson negotiated with appropriate sensitivity in order to bring the research project to successful completion.

When researching a population with illnesses and disabilities, certain struggles are expected, but meeting the expectations of such participants in applied linguistics research can be especially challenging to negotiate. In the next chapter, Hanako Okada draws from her experiences in conducting a narrative inquiry to examine how those with illnesses and disabilities interpret and deal with their experiences. The participants in her study held very different reasons for participating in the study than those of the researcher. Okada explains how such research can lead to significant ethical concerns. She goes on to show that responding to the problems and pressures throughout the research process by taking an approach of moral responsibility can be a solution.

In deaf studies research, challenges such as gaining ethics approval, securing funding, collecting data, and disseminating results to a diverse group of stakeholders are of significant concern. In addition to these, political concerns are particularly significant and are a central focus in the next chapter by deaf studies researchers Lorraine Leeson, Jemina Napier, Robert Skinner, Teresa Lynch, Lucia Venturi, and Haaris Sheikh. In the chapter, five challenges are highlighted in order to target the main obstacles when researching signing communities and sign language interpreting communities. Through an examination of a recent research project, this dynamic research team

shares how to overcome the obstacles when engaging national and regional police forces as well as judges, social workers, lawyers, and others who play a role in facilitating access to justice for deaf people in what are bilingual, bimodal, and interculturally negotiated interpreted settings.

The final chapter in this section deals with the apprehensions surrounding researching our own students. Nicola Galloway examines a number of concerns for teacher-researchers such as potentially disrupting class atmosphere and influencing the outcome of the study in teacher research, classroom inquiry, or action research. She offers reflections on her own research experience negotiating these challenges, showing that through careful workload management, and an acute awareness of ethical issues as well as threats to reliability and validity, teacher-researchers can succeed in their dual roles.

Section four: Data analysis

The fourth section considers problems that arise in the data analysis phase of a research project. Problems in this section include negotiating the relationship between theory and empirical research, managing researcher dilemmas in narrative interview data and analysis, dealing with designs and data analysis in longitudinal quantitative research, and grappling with originality and grounding in qualitative data analysis.

In longitudinal quantitative research, change is not only inevitable, it is often precisely what we seek to examine. In this section's opening chapter, Aek Phakiti reflects on his research involving the assessment of changes and levels of stability over time in strategic competence. Because longitudinal quantitative research requires the matching of two or more data sets, correlations, analysis of variance, or a loss of data can present serious consequences. Phakiti offers seven significant suggestions for researchers for overcoming the obstacles, from understanding the stages of longitudinal research, to clarifying a defensible rationale, to resisting the desire to make others accept the significance of the research simply by its longitudinal process.

Next, in exploring the dilemmatic issues of interaction, representation, and emotionality in his own narrative interview data, Matthew Prior draws our attention to the importance of perspective on these potential obstacles in such qualitative research. While analysis of narrative interview data may seem to unavoidably present what may be described as 'tedious' layers to a study, Prior found that avoiding them is not the solution. Instead, we understand through his experience that analysis of such data is in fact a creative activity that requires conscientious navigation and practice working through the dilemmas that are not only natural parts of the process but also opportunities for awareness raising and development as a researcher.

The quest for originality in empirical research is spotlighted as a significant obstacle in quantitative data analysis. Jessica Briggs returns to her doctoral

research, which involved analyzing data generated by a self-developed research tool to provide an example of a daunting experience in such a quest. She notes that the limited grounding data from previous studies means guidance is limited when it comes to overcoming the obstacles in achieving originality. Briggs recommends that when results do not fit neatly into existing theoretical or conceptual frameworks, rather than doubting the methodological approach, look instead for those phenomena in the results that are unique to the study and seek a balance that allows the results to challenge and advance existing models.

Constant Leung and Brian Street complete this section by taking on issues related to the unclear relationship between theory and research practice in the academic literacies approach. In their research involving ethnically, linguistically, and socially diverse student participant populations, Leung and Street highlight a number of key arguments as ways to overcome the obstacles, focusing particularly on the need for shared understanding of the relationship between teachers and learners, as well as a clear sense of the role of subject content in that understanding.

Section five: Reporting research

The final section outlines problems that arise in the report stage of a research project, including dealing with missing data, writing the doctoral dissertation, and overcoming rejection when publishing.

Reporting controversial findings from interviews in studies that explore personal feelings or attitudes can present particularly challenging obstacles. Participants' responses in such studies can be confronting, unpleasant, and downright offensive to the researcher, as well as future readers of related research output. Roslyn Appleby's research deals with responses from participants that can, at times, be perceived as racist, sexist, emotionally charged, or taboo. Appleby offers three insightful recommendations for overcoming these obstacles, including building rapport with participants, avoiding the adoption of common-sense judgments, and remembering that responses reflect the participants' greater communities rather than individual thoughts.

Knowledge of the end state of foreign language instruction is of great value for those involved in language education research, since such research has important implications for multilingual education. David Singleton and Simone Pfenninger reflect on their experience researching early L2 instruction in their chapter, which takes on the challenges of honest reporting on politically sensitive issues, such as negative results in early L2 instruction that reject deeply ingrained assumptions such as "younger equals better."

In the next chapter, Xuesong Gao opens up as he delves into the painful reality of dealing with criticism in the review stages of publishing research in applied linguistics. As both a reviewer and author, Gao points out two

common problems for qualitative researchers. One is the difficulty of framing a study that is absent of a significant knowledge gap in the relevant disciplinary field. The other is the general vagueness of methodological details where qualitative researchers seem to falter. Through a very honest reflection on his own experience receiving harsh criticisms from reviewers, Gao shows how he turned those criticisms into valuable learning opportunities and provides some strategies to persuade reviewers by dealing with the two common problems.

On finding a way to honestly present oneself in published applied linguistics research, Christine Pearson Casanave uses her trialling experience over a three-year period of writing an article about learning a foreign language that was eventually published in *TESOL Quarterly*. Casanave's exposing and honest reflection on the experience offers valuable insight into what can be a harrowing task as a qualitative researcher. She identifies three key challenges that deal with a writing style that is both academic and personal, she identifies construction that doesn't risk the respect of peers, and she shows confidence in making claims.

For the final chapter, Brian Paltridge takes on the notoriously challenging task of publishing from a dissertation. While a book may seem the more obvious choice, it may be that articles are more advantageous. Either way, it is important to understand that publishing from the dissertation cannot happen without major revisions of the original manuscript, with a strong focus on the shift in audience. Through an examination of his own experience of overcoming the obstacles in getting publications from his doctoral dissertation, Paltridge shows how the obstacles that seem to hinder us can in fact help us to improve the quality of the research outputs from doctoral research.

The volume is rounded out by an important afterword by Andrew D. Cohen, who draws on 45 years of publishing experience in applied linguistics to offer advice to researchers for getting their studies published. The foreword by Sandra Lee McKay and the afterword by Andrew D. Cohen open and close this edited volume with seasoned perspectives from two of the field's most accomplished scholars. We are grateful to both of them for sharing their insight.

Embracing realities and complexities in our research

Through the honest narratives in this volume, and the focus on the truths of conducting research in applied linguistics, we highlight the realities of such research. The strategic organization of these narratives around key stages of the research process is intended to provide a research paradigm in its own right – where the complexities of research methods can be explored as topics of investigation. While we recognize that applied linguistics research can be and is often messy, we too often hide the messiness in favour of a cleaner,

more sanitized description of our sometimes very complex methods and processes. However, such approaches are, as we see it, depriving researchers of valuable insights from which we can grow and allow novice and experienced researchers alike the chance to learn from our pitfalls, mistakes, and follies. The obstacles we face in applied linguistics research can come at any stage of the research process: in the planning, data collection, analysis, and dissemination of results. The obstacles may be central to the research itself, such as working with vulnerable groups. These obstacles are not the problems that need solving, but rather opportunities to strategize and reconceptualize our approaches to the realities of conducting real-world research.

Unlike the days of the “and here’s one we prepared earlier” cooking shows that never reveal to audiences what it is really like to prepare picture-perfect dishes, it is time for us to move forward and recognize that picture perfect is not the goal. Rather, successful research can be achieved via, in spite of, and because of, a myriad of troubles and toils. Working through problems, rather than around them, allows researchers to bring a project to successful completion. Like the picture-perfect cooking shows, which hide the failures and the challenges from their viewers, published research disguises many of the failures and challenges from its readers. By not showcasing these challenges and failures, we deprive the viewers and the readers of opportunities to learn to work through these challenges. Let us look at our messy research methods as building blocks rather than stumbling blocks, and when the finished project finally succeeds, regardless of its originally intended form, we can say proudly, we “nailed it!”

References

- Bargar, R. R., & Duncan, J. K. (1982). Cultivating creative endeavor in doctoral research. *The Journal of Higher Education*, 53(1), 1–31.
- Cook, T. (2009). The purpose of mess in action research: building rigour though a messy turn. *Educational Action Research*, 17(2), 277–291.
- Dörnyei, Z. (2007). *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.
- Grabe, W. (2010). Applied Linguistics: A Twenty-First-Century Discipline. In R. Kaplan (Ed.), *The Oxford Handbook of Applied Linguistics*. Second edition (pp. 34–44). Oxford: Oxford University Press.
- Mackey, A., & Gass, S. (2005). *Second Language Research Methodology and Design*. New York: Routledge.
- Marshall, C., & Rossman, G. B. (2010). *Designing Qualitative Research*. Fifth edition. Thousand Oaks: Sage.
- McArthur, J. (2012). Virtuous mess and wicked clarity: struggle in higher education research. *Higher Education Research & Development*, 31(3), 419–430.
- Mellor, N. (2001). Messy method: the unfolding story. *Educational Action Research* 9(3), 465–484.

Introduction

The nexus of migration and language

The emergence of a disciplinary space

Suresh Canagarajah

This handbook explores the interface between language and human mobility, which is gaining considerable geopolitical significance and generating scholarly inquiry. While language and semiotic resources are becoming important in mediating, regulating, and shaping migrant processes, mobility is also motivating a lot of rethinking on the understanding of language uses and forms. As scholars from the humanities and social sciences undertaking migration studies are beginning to address the role of language, applied linguists are borrowing from constructs in migration studies to understand communicative practices in mobile contexts. Such work is taking place in different academic and social spaces as it relates to particular themes and issues of interest to diverse scholars. This handbook endeavors to home in on the language/mobility nexus so that interdisciplinary scholars can take stock of the emergent scholarship for critical reflection and further development.

Published under a series in applied linguistics (i.e., Routledge Handbooks in Applied Linguistics), this volume's disciplinary scope is somewhat bounded. The handbook brings together scholars in the field of applied linguistics (including cognate fields like sociolinguistics, anthropological linguistics, literacy, language policy and planning, and language teaching) to review the way language/migration nexus shapes their work. The handbook doesn't feature scholars from other fields in the humanities and social sciences (such as comparative literature, geography, sociology, or anthropology) who are engaged in studying mobility, though their work has significantly influenced the scholarship and theorization of applied linguists represented here. The purpose of the handbook then is to critically reflect on how applied linguists study the language/migration nexus in order to sharpen their tools, methods, and theoretical frames. Scholars in other fields will find the linguistic constructs presented in the handbook useful to conduct their own work. Additionally, the handbook introduces scholars from the cognate fields within applied linguistics to the work in their own discipline, as applied linguists in diverse parts of the world studying this nexus don't necessarily enjoy a shared scholarly identity or disciplinary space.

Suresh Canagarajah

Migration and language

Why has the language/migration nexus emerged as significant? Scholars are talking about a “mobility turn” or “mobilities paradigm” in diverse disciplines (Urry 2000; Buscher, Urry, and Witchger 2011; Faist 2013). Though it is not a new experience, migration has attracted considerable recent attention due to new social, technological, and geopolitical developments. These developments have intensified the space/time compression (Harvey 2005) we see in contemporary social life. Texts, languages, and semiotic resources are crossing boundaries easily as diverse temporal and geographical zones are brought closer. People too are shuttling across borders more frequently, thanks to these developments. As the mobility of things and ideas as well as people intensifies in relation to these changes, territorialized (i.e., spatially rooted and circumscribed) ways of conducting social ties, identities, and community life are receiving less significance. Transcending localized, physically fixed, and placed definitions, we are aware of fluid, changing, and socially constructed ways in which these features are defined. Distant and virtual forces shape identities, communities, and social ties. In this context, language and semiotic resources become important for how these social constructs and experiences are defined and practiced. For example, my identity as a Sri Lankan Tamil, my ties with people belonging to this group, and our collective identity are primarily established and experienced through communicative media (i.e., via telephone, email, Skype, and FaceTime). This is because we live in different lands nowadays, having fled Sri Lanka during its ethnic conflict, losing the luxury of constant and direct physical contact. Even family life is transnational and semiotic. My siblings and I conduct our family life through digital media, as we live in different time zones and national borders in the UK, United States, Australia, and Sri Lanka. Language thus gains significance as a resource that mediates, shapes, and builds such relationships. It is not that language didn’t play this role before in history. It is simply that its role is more salient now, in the context of the facilities that enable us to compress the space/time diffusion.

This compression has also given importance to “simultaneity” (Levitt and Glick Schiller 2004: 1003). Beyond crossing boundaries, we are able to collapse boundaries, and bring to bear diverse ties, identities, and communities on a single interaction or relationship. These relationships of “layered simultaneity” (Blommaert 2005: 237) also gain a semiotic dimension, enabled primarily by language and communication. From this perspective, one enjoys multiple identities and community memberships, which might gain salience differently in mobile interactions, further challenging territorialized, essentialized, and primordial ways of defining such social relationships. We are also able to conduct social ties and activities in diverse locations at the same time, drawing from multiple identities simultaneously, transcending our physical location.

Such developments are contributing to relationships and affiliations that are diversified and changing, built on hybrid and fluid semiotic resources. Social scientists have coined a new term, *superdiversity* (Vertovec 2007), to describe the more fluid forms of community being established by migrant communities in European urban spaces. People from diverse national and ethnic groups that settle in an urban space are able to form new communities with mixed features from their languages becoming a new shared repertoire to conduct their social life in the new habitation. These superdiverse communities are more layered and mixed compared to the separated ethnic enclaves that characterized previous waves of migrant settlement. Other terms such as *diaspora* are also being used in more expansive ways to index the experience of newer and more diverse migrant groups spread beyond their traditional homelands (Hall 1997). *Cosmopolitanism* is being adopted to index the

dispositions that facilitate cultural and linguistic engagement between diverse communities in contexts of mobility (Vertovec and Cohen 2002).

Migration and language have also received new impetus in the contemporary neoliberal economy built on production and marketing relationships that value mobile workers, capital, and products, facilitated by cross-border flows. To facilitate these flows, language has become an important form of human capital. Communicative repertoires are critical for enabling and managing such production and marketing. An important dimension of this form of economy is labor migration (Kuznetsov 2006). Talented people from diverse countries are encouraged to move across borders by industries in developed communities to contribute to their technological innovation. Language and communication become important for this domain as well, as workers from different nationalities collaborate in shared workplaces and production and marketing networks. Furthermore, the primary means of production in the neoliberal economy has shifted to tertiarization (Heller and Duchene 2012). Departing from the earlier focus on obtaining raw materials for industrialization, and the secondary stage of synthetic production, the focus of current production is on symbolic work. Tertiarization involves work on innovation, branding, client service, and marketing, all providing an important role for language and communication, in globally expansive economic relationships. Consider that in earlier forms of industrialization talk was censored and punished on the factory floor (Boutet 2012). What was expected then was physical labor for efficient material production. Now talk is encouraged as workers are expected to think outside the box to innovate and brand products in creative ways for the global multilingual market. For all these reasons, language repertoires have become an important form of human capital in neoliberal forms of mobility.

While language is important for mobility, mobility has also changed our understanding of language. Here again, it is not that the forms and functions of language being theorized are new. Mobility has simply made visible new communicative practices. Scholars are attempting to document, analyze, and theorize these practices with new terms and constructs. While I will discuss these new realizations later, it is good to introduce here the many new terms being coined and the debates regarding their relevance. Paralleling the “mobility turn,” applied linguists now talk of a “multilingual turn” (May 2014). To index the more intense forms of contact that transcend labeled, territorialized, and separated languages, and the synergy of new meanings and grammars being generated through this mobility of codes, some scholars have adopted the term *translanguaging* (see Blackledge and Creese, this volume). Other labels such as *plurilingualism* (García 2009), *metrolinguism* (Pennycook and Otsuji 2015), and *transidiomaticity* (Jacquemet 2005) have also been coined by applied linguists, befitting their purposes and contexts, for roughly the same idea. As people borrow language features from diverse communities to index new identities and affiliations in mobility, even when they don’t have full or advanced competence in the borrowed language, Rampton (2008) has coined terms such as *crossing* and *styling* to refer to this activity. Blommaert (2010) has coined the term *truncated multilingualism* for a competence that involves adopting bits and pieces of diverse languages for communicative functions in diverse migrant spaces.

We have to be cautious of claiming any kind of novelty to what is being indexed by these neologisms in this disciplinary space (see Pavlenko forthcoming for a critique). Though some scholars have treated sedentariness as traditional and mobility as modern (Zelinsky 1971), others have demonstrated that mobility is not a new human experience. There have been different, but equally complex, forms of mobility, transnationalism, and globalization in the past (Hoerder 2002; Faist, Fauser, and Reisenauer 2013: chap. 3; Han this

Suresh Canagarajah

volume), including in premodern times (Anthony 1990, 2007; Cameron 2013). Similarly, languages have always been in contact, generating synergies of new meaning and grammar (see examples from before modernity and colonization in Pollock 2006; Canagarajah 2013: chap. 3). As Faist et al. (2013) argue, recent social and technological changes have simply intensified mobility, contact, and diversity rather than initiating them. However, this new visibility has changed the discourse in productive ways. In the place of territorialized, bounded, and static ways of talking about language and social practices, we are now adopting constructs that index their mobile, hybrid, and constructed nature. It is the discourse that is new, not the migration experience. Attempts to move inquiry beyond static, primordialist, and territorialized perspectives do require a creative and meaningful language. While acknowledging that mobility and translanguaging are not new human experiences, I see a need to construct new terms and models to correct the previously reductive discourses in scholarship and inquiry.

Rather than romanticize mobility as novel, what needs to be examined is the changing configurations of boundaries and flows in different social formations through history. There have always been policies and institutions that regulated flows to serve the interests of different social groups. There have never been unrestricted possibilities or unqualified scope for mobility. Therefore, Faist (2013) paradoxically states that mobility is a form of boundary management. Boundaries have always channeled mobility in particular ways for different groups of people. Consider, for example, the capitalist formation accompanying modernity. Capitalism found mobility useful for the economic and social world it was constructing, facilitating greater mobility for the middle class, relative to the restrictions of feudalism. The previous feudal order thrived on a more stable noble/vassal relationship, with caste-like reification of social hierarchies reproduced through generations, in privately owned land. Mobility unleashed the potential for knowledge and entrepreneurship by freeing many from the static and permanent feudal relationships and the bounded places they were locked in. However, precisely because of this social fluidity, mobility had to be regulated. Mechanisms had to be set up to protect capital, property, and ownership. Nation-states and citizenship territorialized subjects and identities. As I will argue later, the ideologies and discourses promoted by modernity were motivated by controlled mobility. Similarly, though the late-modern formation characterized by contemporary neoliberalism might appear to provide more scope for mobility across borders, it comes with its own boundaries to channel the flows in specific ways, giving access to certain people to certain spaces, as I will discuss in detail later.

Migration and mobility

Before we discuss the ways migration studies and applied linguistics have influenced each other to generate new theoretical constructs and analytical methods, a word about the connection between migration and mobility. The title of this handbook references migration rather than mobility. This is because the handbook focuses specifically on human mobility. Mobility as a general term includes the movement of many other resources and objects beyond human agents. The circulation of capital, products, information, and knowledge are part of the general term of mobility. A handbook on mobility, therefore, would feature different topics and scholarship than those represented in this one. This handbook places the spotlight on human mobility. Though the contributors to this handbook do discuss the ways diverse factors participate and are implicated in human mobility, they are not focusing on them for their own sake. As they consider the geographical movement of people, the

contributors are interested in examining how applied linguistics can be informed by broader paradigms of spatiotemporal mobility.

There are other distinctions we need to be aware of in the way the term *migration* is used in order to appreciate the scope of the term *mobility*. In policy and public discourse, the privileged who enjoy the resources and access for travel are considered mobile, and the less privileged are referred to as migrants. The mobile are welcome everywhere and have the resources to shuttle across borders as they please; migrants seek opportunities and refuge elsewhere. Reflecting on the biases behind this distinction, Faist (2013: 1640) observes:

In the welfare-competition state, the movement of persons is dichotomized in public debate into mobility and migration, with mobility connoting euphemistic expectations of gain for individuals and states, and migration calling for social integration, control and the maintenance of national identity.

It is important to problematize the distinction between these terms, and examine questions of inequality in mobility in this handbook.

We have to also distinguish between vertical and horizontal mobility. This handbook is primarily concerned with horizontal (that is, geographical and spatial) mobility. Note, however, that mobility has also been used as synonymous with social (i.e., class and, thus, vertical) mobility in some scholarly contexts (see, for example, Graff 1991). Furthermore, vertical mobility has been implicated in horizontal mobility. There are social discourses that associate the desire for or possibility of geographical mobility as a sign of social/class mobility. Being sedentary or rooted is associated with lack of resources, being conservative, or the refusal to better one's prospects. Reflecting this bias, Bauman notes: "Local in a globalized world is a sign of social deprivation and degradation" (Bauman 1998: 2–3). This distinction too must be problematized. Geographical mobility doesn't always lead to social mobility. Many types of geographical mobility (including labor, climate-induced or conflict-driven displacement, and political exile) result in people ending up in worse economic and social status than what they enjoyed before migration. Though focused on horizontal mobility, this handbook examines the unequal chances for different migrant groups in vertical mobility (see Block, this volume).

Finally, both mobility and migration are volitional in connotation. The terms assume agency on the part of those moving outside their usual habitations. Traditionally, push/pull factors have been adopted to explain such human movement (Anthony 2007). While some factors, such as lack of opportunities for social or economic betterment serve as push factors, the possibility of advancement in the new places of habitation serve as pull factors. However, there are many migrant groups that have moved involuntarily in history. In consideration of these groups that experienced only push factors, usually of the most life-threatening kind, some scholars have preferred less volitionist terms such as "population circulation" (see Schachner 2010; Cameron 2013). Though the handbook uses the term *migration*, several contributions explore involuntary displacement to provide a balanced perspective.

Theoretical shifts

The greater visibility of mobility, and attendant social and communicative changes, has generated epistemological shifts that have affected social sciences and linguistics alike. Treating "mobility as method," we must approach mobility as not just a topic to be discussed under existing paradigms, but explore how it shapes the way we study and interpret social

Suresh Canagarajah

and communicative practices. In framing it thus, I follow Mezzadra and Neilson (2013), who coin “border as method” to explore borders not only as a research object but also as an epistemic framework, with illuminating outcomes. I now outline these theoretical shifts in applied linguistics before identifying the analytical constructs and methods emerging for the study of language and communication. Though inspired by mobility, these constructs are beginning to have an impact on all aspects of language studies beyond the theme of migration.

The dominant discourses of modernity promoted paradigms that assumed territorialization, structure, and stability. They were influenced by such geopolitical developments as nation-state formation, private property, and colonization which had an interest in fixing communities and individuals in particular locations and identities despite (or because of) the increasing mobility unleashed by technological changes. As a specific example of the discourses of modernity, consider the “Herderian triad” (Bauman and Briggs 2000). This ideology made an equation between language, community, and place. In effect, German language identifies the German people who are placed in the nation-state of Germany. The language represents the spirit of the people which emerges from the soil of the land. Those who speak this language from elsewhere are therefore interlopers, as they cannot represent the spirit of the land that informs the language and its people. As we can see, this ideology territorializes language. Language is also turned into a static system that cannot move to other places or locations without losing its essential character. Many effects follow – and are still with us. People are located in specific lands/places with the language that naturally belongs to them. A person migrating from Turkey in childhood and speaking German as her most proficient language would perhaps still be considered an interloper in the language, unable to represent the original or pure spirit and values of the Germans in their language, thus considered a “non-native speaker.” As we can see, the Herderian triad accounts for ideological constructs such as native speakerism, language ownership, essentialized/unitary identities, and exclusive/bounded community memberships.

Mobility disturbs many of the assumptions behind the Herderian triad. As people move across borders, they are taking their languages with them and also appropriating new semiotic resources for their identities and communication. With such changes, we must also go beyond considering each person as an owner of a single language. It is possible for speakers to claim intimate and proficient relationship with multiple languages simultaneously. We should be open to considering how diverse languages might represent hybrid, changing, and situated identities for individuals. We should also grapple with changing configurations of community relationships and affiliations for individuals. More importantly, people’s social ties extend beyond local communities and physical boundaries to occupy *transnational social fields* (i.e., spaces that transcend nation-states; Faist et al. 2013). As the locus of social ties beyond national borders or physical places, these spaces might be imagined, socially constructed, and semiotically mediated. In other words, language plays an important role in establishing and enabling transnational social fields.

As people’s relationship with territorialization changes, place itself is getting diversified. Scholars have begun to study the dynamic relationship between place and space. Though variously defined (see Higgins, this volume), virtual *space* sediments into geographical *place* through ongoing human activity; however, there are social *spaces* people construct to establish alternate and oppositional communities, countering the dominant groups and traditional norms of a *place*. These distinctions help us also move beyond territorialized constructs and consider home making, community formation, and place making as ongoing activities in mobility, often mediated and regulated by language. These considerations also

allow us to redefine the language implications for identity and community. We treat these constructs as mediated and constructed by language, not independent of them, allowing for changing, mobile, and situated representations of identity and community.

Just as people's relationships with languages change with mobility, our understanding of language is also changing. This is because not only people, but language is also mobile, whether accompanied by people or not. Mobility has challenged the static, objective, and bounded ways in which we perceived social or communicative activities. Structuralism, arguably the legacy of linguistics to many other fields such as sociology and anthropology, motivated scholars to treat language as a *sui generis* system that explained its own coherence in the way it was tightly structured, without the need to consider other domains such as society, culture, history, or geography. In adopting this framework, language was turned into a static, abstract, and autonomous system suitable for objective analysis. This tendency has also led to perceiving each labeled language as having its own system, separated from others. Similar shifts occurred in other fields in relation to their objects of inquiry, such as social structure or cultural systems, which were treated as autonomous and stable.

In the context of mobility, scholars are considering languages unbound – that is, they are endeavoring to understand the flows across time and space of semiotic resources, unfettered from an imposed structure. In order to do so, they treat these resources (of which verbal resources are also a part) as floating signifiers. They can be appropriated by people in a specific time and place for their meaning-making purposes. They become sedimented into grammars, and index values and norms over time, through a history of social use. Such a perspective would resist the territorialization of labeled languages as belonging to one place or community, with static norms and meanings deriving from a preconstructed structure. This shift is behind Blommaert's claim that we should perceive communication as shaped by "mobile resources" and not "immobile languages" (2010: 49). From this perspective, we shouldn't treat labeled languages as the starting point for the analysis of social and communicative practices. We should consider how diverse verbal resources (unrestricted by their labels) are taken up by people to establish meanings and negotiate relationships. The metaphor of resources also adds a functional perspective to the study of language. Communicative activity is the framework within which language forms should be analyzed. Norms and meanings emerge in relation to the functions people perform in situated interactions. This effort to go beyond labeled, autonomous, and separate languages, and consider the synergy between verbal resources in meaning-making activity, is behind the shift to translanguaging.

As we treat communicative activities as facilitated by mobile resources, we are also paying more attention to the way language works in tandem with diverse semiotic resources, social networks, and material conditions to produce meaning. Beyond questioning labeled languages as autonomous, we are now ready to consider language itself as embedded in social and material features, thus questioning the autonomy of language as a meaning-making system. In addition to including diverse semiotic resources in our consideration of meaning, we are also treating meaning as multimodal and multisensory, by including affective, imaginative, aesthetic, and material considerations in our analysis. It is in this way that we are able to explain the communicative success of "truncated multilingualism" and "styling." Since verbal resources are aligned with other social and material affordances to make meaning, a full and advanced competence in a single language is not required. Migrants are able to use the available verbal resources strategically, in relation to the diverse and social ecological affordances in their context, for effective communication that might deviate from the norms of native speakers or grammar books.

Suresh Canagarajah

These orientations on language as a mobile resource are moving us away from the structuralist tradition that treated language as an autonomous and perhaps superior system for meaning-making. We are learning a lot from models that resist structuring to understand meaning-making practices. Many of these models have been better articulated in fields beyond linguistics, such as the social sciences or philosophy. Influenced by practice-based orientations (De Certeau 1984), we are treating communication as an activity. Such a functionalist orientation enables us to consider how norms and meanings emerge in relation to the situated and social functions people perform over space and time. In adopting this perspective, we are also open to considering meanings and norms as shaped by an “assemblage” of diverse resources. Drawing from this construct articulated by Deleuze and Guattari (1987) and Latour (2005), we now consider diverse social networks, ecological resources, and material objects as going into the construction of meaning in dynamic ways. We benefit from a “flat ontology” (Marston, Jones, and Woodward 2005), to guard against prioritizing specific factors, such as cognition or language, as more important than others for meaning-making activity. We consider all the factors that contribute to the emergence or construction of meaning without preconstructed boundaries, exclusions, or hierarchies. We distinguish the assemblages that gain changing significance in situated activities and are open to the different affordances and resources that contribute to meaning. From these perspectives, we are also reconsidering the place of material resources in social and communicative life. Posthumanist thinking and object-oriented ontologies have made us aware of the agency of things and objects (Barad 2007; Braidotti 2013), and the way they shape cognition and communication. We cannot treat material resources as inactive or merely instrumental for human communicative interests. Things have a life of their own, and significantly influence human thinking and communicative activity.

As we thus treat verbal and semiotic resources as mobile and situate them in spatial and temporal contexts, removed from their autonomy in predefined and abstract structures, applied linguists are searching for theoretical paradigms beyond structuralism. Many scholars are persuaded to adopt a spatial paradigm as better attuned to mobility. Influenced by the thinking of geographers (like Massey 2005; Thrift 2007), the spatial orientation to communication would involve the following assumptions:

- Acknowledge space as agentic, shaping social activities in significant ways;
- Treat space as diverse, dynamic, and changing, involving reconfigurations of space and place;
- Consider communication as an activity embedded fully in the environment, situated in space/time conditions;
- Understand communicative activities as fully material, treating diverse objects, artifacts, and physical nature as shaping meaning;
- Take into consideration all the affordances and constraints in the context (i.e., diverse semiotic resources, social networks, and material conditions) as equally shaping the communicative activity.

As we treat space as the starting point of our analysis of communicative activities, or orientate to space as the locus and frame of our inquiry into meaning, this shift enables us to problematize other constructs such as language, community, nation-state, and human cognition. It helps scholars consider the emergence of these constructs they traditionally took for granted or defined before the analysis (see Glick Schiller and Caglar 2011b who adopt a similar approach towards urban migration). Constructs such as identities, community, and

meaning can be considered for the manner in which they are put together through diverse material, social, and ecological factors, or emerge as an assemblage through diverse semiotic resources.

Spatiality enables us to counteract the dominant “metaphysics of presence” (Buscher et al. 2011: 5), which treats only those phenomena that are immediate, local, and physical as worthy of analysis. Those that are not immediately available to the senses are not treated as shaping talk or texts in this approach. The metaphysics of presence is also informed by the modernist bias towards empirical and positivist inquiry. However, as we grapple seriously with simultaneity, we are aware that factors in other times and places influence meaning-making and social activities. We cannot discount the influence of factors that are invisible, distant, or non-present on identity, meaning, and communication. Spatiality brings a sensitivity to the ways diverse spatial and temporal scales impinge on texts and talk.

Such a shift involves moving from grammar as the primary meaning-making system to a consideration of *spatial repertoires* (as they are beginning to be conceptualized by many scholars; see Fast 2012; Otsuji and Pennycook 2015; Canagarajah forthcoming b). They are different from grammars in the sense that they involve diverse semiotic resources. They are spatial in the sense that the resources are defined by and embedded in the space/time contingencies in which activities occur. They are different from genres, as genres have been traditionally defined in terms of largely verbal resources and are somewhat fixed and predefined. We can understand the notion of spatial repertoires as an alternative to grammatical structure for explaining the competence of language users. Communicative activities require certain objects, words, discourse conventions, physical movements, gestures, body postures, and participant frameworks for interactional success. Though interlocutors don’t need the ability to form complete grammatical sentences, they must know how words align with objects, people, and contexts to be meaningful. We have to think of spatial repertoires as a heuristic or a template to guide interactions, rather than as fixed rules. They are situated, ecological, negotiated, and emergent. Participants must know how to adopt reciprocal strategies with interlocutors in contexts of spatial variation.

Spatial repertoires put the focus on practices and strategies rather than on norms, patterns, and structures for communicative success. Mobility requires a qualitatively different orientation to meaning-making and competence in order to explain the paradoxical features of fixity and fluidity, stability and change, order and emergence in communication. It requires a focus on the processes, practices, flows, links, and assemblages involved in meaning-making, beyond a focus on meaning as a product or pre-established norms. While we focused on the *what* earlier, we are now more concerned about the *how*. We now realize that how meanings are negotiated, established, and achieved is key to communication and social life. The earlier focus on meanings and identities in a product-oriented manner was informed by a static, territorialized, and homogeneous treatment of communication and language. The current shift is informed by the move toward *non-representational* thinking in many fields (Thrift 2007). While representational thinking focused on the *what* as the objective of inquiry, non-representational thinking focuses on the *how* (among other differences). The former lends itself to essentializing meanings and identities. As we become sensitive to diversity, fluidity, and complexity in mobility, the focus is more on the practices and processes, and affective and material factors, which explain the way meanings and identities are constructed. It is significant that scholars are now treating social and communicative constructs not as nouns (to index meanings and products), but as verbs, as in grammaring, translanguaging, place making, homing, and meaning-making.

Suresh Canagarajah

As we have seen, mobility has provided more complexity to communicative activity, compelling us to develop new theoretical orientations to the analysis of language. We have had to develop new constructs for inquiry, analysis, and interpretation. The constructs I have introduced in this brief narrative, such as simultaneity, spatiality, transnational social fields, non-representational thinking, assemblage, and translanguaging, will inform the chapters in the handbook and become fleshed out in the discussions.

Research and analytical methods

These shifts in theoretical orientations have generated new questions about the scope and focus of analysis in communicative interactions. There are two fundamental challenges for research and inquiry as applied linguists move forward. They can be explained as follows:

- 1 *Scope of analysis*: What is the scale, scope, or boundary of the interaction that should be analyzed? In short, what is a relevant unit of analysis for communicative interactions? This decision becomes problematic when we consider diverse spatial and temporal scales as mediating interactions, compounded by the simultaneity that introduces layers of meanings, identities, and investments from different times and places in the same interaction. Where do we draw the line on a text, talk, or interaction that is a valid object or artifact for analysis?
- 2 *Focus of analysis*: What verbal and semiotic features should be included in our analysis? Now that we are open to considering communication as translingual, multimodal, material, and spatial, an infinite number of features can become meaning-making resources. However, certain resources might be more salient than others in specific interactions.

To understand the significance of these questions, let us consider how we addressed these concerns traditionally and how they are called into question in a mobile orientation to semiotic resources and interactions.

To consider the first question, recall that scholars in applied linguistics and many other fields often treated the nation-state as the default and implicit boundary for communicative and social interactions. This bias is referred to as “methodological nationalism” (Wimmer and Glick Schiller 2002). The possibility of transnational social fields suggests that our social ties and interactions exceed the nation-state and adopt liminal spaces as their locus. From this perspective, methodological nationalism might turn out to be an irrelevant and reductive framing for certain interactions. A similar framing is the community – treated often as an ethnic group that shares certain norms and values about language and communication. In applied linguistics, scholars operationalized this framing as a *speech* or *discourse community*. Some have critiqued this framing as the “ethnic lens” (Glick Schiller and Simsek-Caglar 2011b: 65). Pratt (1987) has argued that these assumptions of shared group norms are a “linguistic utopia” that ignore that all social spaces are contact zones where people with diverse norms engage in communicative activities.

While the nation-state or the community framed the unit of analysis at the macro level, we defined the object of analysis at the micro level in a slightly different way. Applied linguists have treated the verbal resources of two or more individuals in a face-to-face interaction as the relevant micro unit of analysis. Meanings should be recoverable from the language used in the immediate interaction. Any interpretive resource brought from outside the immediate interaction was secondary. They were admitted only when the resources in the immediate/local verbal interaction were inadequate to explain what was going on. Similarly, in literacy,

the bounded text and the physical activity of writing by an author or collaborators, or the reading activity of an individual or group, were considered the scope of analysis. Individuals who are not present in the face-to-face conversational interaction or literacy event were not considered relevant. Other non-human influences on language or the expanded spatiotemporal flows of words and texts did not actively influence interpretation. This analytical orientation was influenced by the “metaphysics of presence” that valued immediately available sensory data as permissible evidence for knowledge claims.

However, as we discussed, there are many shaping and constraining influences on the conversational interaction or text from outside the immediate participants and interaction. Consider the non-present human agents who might also be part of the communicative interaction. Blommaert, Spotti, and Van der Aa (this volume) discuss a refugee interviewee in their study in Belgium being influenced by a family member who was overhearing their interview via Skype (through a laptop that was always in her hands during the interviews). When the researchers accidentally discovered this distant and invisible “participant,” they realized that the meanings and content of the interview were shaped by this family member as well. In the context of time/space compression and the resulting simultaneity, our inquiry now has to be open to influences from participants outside the immediate physical context of interaction. The participants in a study could themselves be relating their meanings and identities to other places and times beyond the situated interaction.

Many resources and factors presumed to be lying outside the focus on the verbal data were relegated traditionally to “context.” The construct “context” enabled us to draw the line on what we considered “talk,” “text,” or “interaction” that merited close analysis. From an expanded spatiotemporal perspective on communicative interactions, we run into problems in separating context from text. Traditionally, for reasons explained earlier, we treated the immediate physical and temporal environment of a face-to-face interaction as belonging to the text; all other spatiotemporal influences and factors were relegated to context. Two dominant metaphors have been adopted to characterize the text/context relationship. The classic metaphors of figure and background are implicit in many studies. The figure (i.e., text) receives primary focus. The background only brings it into relief, and perhaps contributes secondary and contingent meanings from the context. A slightly different metaphor that was applied in certain other studies is that of the context as container. From this perspective, the context shapes the meaning of the text which is contained. This application can be a bit deterministic, with what is considered context controlling the possible choices of interpretation.

Though both metaphors acknowledge some influence from the context on talk/text, they are characterized by certain limitations:

- The influence of context is one-sided. Not much attention is given to the possibility that language and/or speakers can renegotiate, reconstruct, and recontextualize the interaction in dynamic ways throughout the talk or interaction. In fact, language or text can constitute its own context. Furthermore, interlocutors can reframe how social and material context are made relevant to their talk or texts as they interact.
- Context is treated as somewhat static. This probably comes from the bias that material environment lacks agency. The work of posthumanist theorists makes us realize that the material/physical environment is changing, dynamic, and agentive. Material life also shapes human interactions, considerably qualifying human agency. From this perspective, objects and the environment can mediate and shape language and cognition in complex ways.

Suresh Canagarajah

- Context is monolithic. Its multiplicity or diversity is not acknowledged. The notion of layered simultaneity acquaints us to the fact that there are multiple scales of influence, from places and times of different distance and proximity. The contexts or factors that mediate and shape multilingual interaction can belong to different scales of consideration, nested or overlapping with one another. For example, a classroom interaction is regulated by the institution (school); shaped by policies of the larger state, regional, or national educational administration; and nested within global educational systems. We have to determine which contextual scale becomes relevant at what point. It is not also acknowledged that context is relative. What is global or local (or immediate or distant) in an interaction might differ for each participant, and also change as the interaction proceeds. This distinction becomes especially problematic when we consider that the local and global interpolate each other (see Wortham and Reyes 2015 for a discussion).
- Context is treated usually as geographical, without adequate attention to temporal influences. Features of the setting, such as place, community, or nation-state, are acknowledged, accommodating related notions such as culture or social structure. But the influences from time are not given attention beyond the generalized notion of “historical context.” Time would explain the mobility of people and semiotic resources through diverse scales (i.e., present but also past and future) often all scales coming together in layered simultaneity.
- What is included in context is largely impressionistic and arbitrary, rarely treated as an empirical question that needs to be ascertained. Context is assumed before the data collection or analysis without being problematized. Researchers rarely keep the relevant spatiotemporal frames for analysis open throughout the diverse stages of the study, sensitive to how context may itself be changing at different stages of the interaction as well as their study.
- Finally, the binary distinction of context/text is misleading and irrelevant when we consider that communicative practices involve diverse resources across many levels of time and space with different horizontal and hierarchical influences. The binary collapses this amalgamation of influences into two, with one given more importance than the other in our analysis. The spatial orientation would consider how meaning is an emergence of diverse resources across different scales of space and time. From this perspective, the contexts of interaction are very expansive. They can involve unlimited time and space considerations shaping the focused interaction.

The way we have traditionally circumscribed our unit of analysis, by making an arbitrary context/text distinction, also shapes our understanding of what semiotic features we take into consideration as meaning-making resources. Our focus of analysis is the verbal resource from a single language we consider as enjoying meaning-making potential in the interaction. Everything else is relegated to insignificant context. The spatial orientation would complicate our focus of analysis. As in Latour’s (1987) telling metaphor, there is an “Ariadne’s thread” of diverse networked resources from ever-expanding spatiotemporal scales that shape talk. Applied linguists are already pushing back against the “lingual bias” in our field (Block 2014) that treats verbal resources as the only or superior medium of communication.

Note that even in studies of multilingual interactions the focus of analysis is still one language at a time. In studies in second language acquisition, interactions in other languages are treated as side sequence to resolve problems in the language being learned (see Firth and Wagner 2007 for a critique). In studies of English as a lingua franca (ELF), the use of

languages other than English was traditionally ignored in favor of describing the corpus of English used by multilingual speakers (Seidlhofer 2004). Other verbal resources were not analyzed for the possible synergy with English or the new indexicalities of meaning beyond labeled languages. Similarly, the less obvious cognitive or affective influence of diverse languages on the use of English by multilinguals as they shuttle between languages was also not treated as ascertainable or relevant. If we accommodate language contact and the new meanings produced out of this synergy, along the orientation to translanguaging, we should include the meshing of codes from diverse separately labeled languages and consider deviation from established norms as part of the indexicalities of meaning.

Studies in mainstream applied linguistics also treat non-verbal resources in limited ways. In some analytical traditions, para-verbal resources have been excluded as tainting the analysis. For example, ELF has prioritized words (see Pitzl 2010: 92 for her justification on focusing on words and accommodating non-verbal resources in limited exceptional cases). Though laughter and silence have been addressed in some studies, they have been largely treated as para-verbal cues that point to the more important language work in the interaction (see Matsumoto 2015 for a critique). Silence can indicate lack of uptake of the previous utterance, for example. But it has rarely been considered as a semiotic resource in its own right for producing meaning that complements or enriches the verbal (see Glenn 2004 and Matsumoto 2015 for such a demonstration). Similarly, laughter has been treated as a face-saving strategy for filling silence or marking lack of uptake, without considering how it might contribute to additional meanings (see Matsumoto 2015 for a corrective).

To move further, features of the body (such as gaze, gesture, posture, proximity, and positioning) have also not been given adequate significance in multilingual interactions (see Goodwin 2000 for a notable exception). Despite a small group of scholars in applied linguistics focusing on gesture as complementary to talk (see Smotrova and Lantolf 2013 and Matsumoto 2015 for emergent work in classroom contexts), a majority of studies have largely treated gesture as a compensatory strategy, but not as a meaning-making resource in its own right. It has also not been considered as complementary to verbal resources, conveying meaning beyond words, as a separate channel of communication. Other features of the body should also be considered more closely for the way they function as semiotic resources, conveying meanings that parallel, constrain, or enrich verbal communication. Interactions in multilingual and migrant professional settings suggest that because of workplace contingencies (i.e., noise, speed of production, wearing masks) a lot of effective and efficient communication occurs without words or with minimal language use (see Kleifgen 2013). Not including them in the focus of analysis would mean losing significant information on the meaning of these interactions.

Much of the work on non-verbal resources gets addressed under the field of multimodality. However, the spatial orientation expands multimodal analysis. Multimodality has hitherto addressed certain predefined modes and features scholars have considered as “communicative,” such as gestures, sound, images, and visuals (see Kress 2000; Stein 2000). Spatial orientation goes beyond to include all material and social affordances, such as objects, artifacts, and social networks as equally communicative (Rickert 2013; Pigg 2014). In fact, anything can become communicative, based on the indexicality achieved in situated interactions over time. There is also a tendency in multimodal analysis to systematize communicative modes for their norms and patterns in meaning-making (see Kress 2010 for an attempt); but spatiality adopts a more open orientation to modes as an assemblage. In this sense, multimodality still makes a distinction between context/text,

Suresh Canagarajah

distinguishing communicative modes from non-communicative contexts; but spatiality considers all the environmental/spatial resources as potentially entextualized in complex and subtle ways into the emergence of meanings. Furthermore, multimodality considers communicative modes and resources as already endowed with certain meanings, while spatiality considers how modes that are not necessarily considered communicative (such as machines or artifacts in a workplace) might index meanings in situated social activity (see Canagarajah forthcoming a, for an analysis). Finally, multimodal scholars adopt an agentive orientation to consider how people use multimodal resources for their communicative intentions; however, spatiality considers the way the alignment between people and modes shape meanings. There is greater acceptance of the shaping influence of things and other semiotic resources on human cognition and verbal facility in the spatial orientation.

It is salutary that scholars in applied linguistics do address strategies of communication beyond meanings and identities. This move towards *procedural* (rather than *propositional*) competence (see Byram 2008) is a gesture towards non-representational thinking. It is possible to presume that a focus on communicative strategies would bring a broader social and material orientation to interactions, giving greater significance to diverse semiotic resources. However, communicative strategies are largely analyzed in relation to the negotiation of verbal meanings in many fields in applied linguistics (see Bjorkman 2014 for a recent state of the art on how strategies are studied in ELF). That is, interlocutors are observed for the strategies they adopt to anticipate or repair communicative breakdown in words. Also, the strategies they adopt are deployed verbally. How they might use the body, objects, or other resources in the setting to repair breakdown is not considered as part of the analysis or their communicative competence. (In fact, competence and meaning are defined in terms of grammatical control.) More importantly, how communicative strategies might enrich or complement verbal meaning by bringing other social and material resources into communication is not explored.

To appreciate the scope of resources that can be included in a spatial orientation, consider the treatment of *alignment*, a construct that is used in different applied linguistic models to address procedural competence. As it is used in conversation analysis (see Steenstig 2013), it refers to the strategies interlocutors adopt (such as back channeling cues) to indicate focus on the interaction and uptake of words. However, alignment could also be indexed by proximity, gaze, or positioning. It can also mean how resources in the communicative ecology (such as objects and artifacts) are marshaled to complement meaning. The latter possibilities are addressed in the sociocognitive model (Atkinson, Churchill, Nishino, and Okada 2007: 171), which is salutary for exploring the “mind-world-body” connection. However, a limitation of the sociocognitive orientation is that the resources taken into consideration are situated in the here-and-now (adhering to the metaphysics of presence). Also, the alignment is eventually studied for its effects on cognitive and grammatical control one language at a time. Other models, such as the communities of practice (Wenger 1998), study alignment in relation to resources and social networks that are distant in time and space. From this perspective, alignment can mean how one positions oneself in relation to social networks, objects, and semiotic resources that are not immediately present in an interaction to perform an activity. However, there is a strong sense of human agency in this orientation, treating the strategies as adopted by individuals and groups. Spatial orientation would posit that alignment can accommodate diverse objects in the material and social environment to be strategically configured to generate meanings that are beyond cognitive control and that are not fully under the competence of the

individual. Alignment in the latter sense is an adaptation to diverse semiotic resources that requires bodily and affective dimensions beyond the cognitive for meaning and identity construction. To move away from the cognitive bias in terms such as *alignment* and *competence*, some scholars in the spatial orientation adopt the terms *emplacement* (Pigg 2014) or *ambience* (Rickert 2013). These terms connote that meanings emerge with greater shaping influence from bodily alignment and material resources. From this perspective, human agents may have to contend with the constraining influence of material factors to strategically work with available resources to negotiate possible meanings. As it is evident, the spatial orientation on mobility compels a qualified view of human agency, verbal facility, and cognitive mastery in meaning-making activity (see Canagarajah forthcoming a, for a fuller discussion).

Methodological ways forward

Though expanding the scope and focus of analyses is important, we have to recognize that there are ways in which the scale and resources are delimited in each interaction. Sometimes, interlocutors cue how they want the interaction to be framed. Certain semiotic resources might become more salient than the others for a variety of reasons. Furthermore, a “flat ontology” doesn’t fully contend with the fact there are power inequalities, which might place certain scales and semiotic resources as more important than the others in certain interactions. Hierarchies and boundaries are obdurate social facts. Therefore we have to turn to the question of which contexts of consideration and which semiotic resources should be included in a given analysis. I review a few approaches applied linguists have come up with in response to this question, as we continue to engage with these methodological challenges.

Scalar analysis is becoming useful for applied linguists to address the emerging analytical questions (see Prinsloo, this volume). This is a construct applied linguists have recently borrowed from anthropology and political science. Scales enable us to consider how participants and analysts frame texts or interactions. Scales remind us of Goffman’s (1983) notion of *frames*. But scalar analysis enables us to address frames in more layered and complex ways. Furthermore, scales enable us to address non-visible and non-immediate features that Goffman left out because of his prioritization of the local in his treatment (see Lempert 2012 for a critique). Though there are significant debates on the definitions and operationalization of scales (see Canagarajah and De Costa 2016 for a review), we can orientate to scalar analysis as follows:

Scales are both spatial and temporal. More importantly, they help us consider how they are dynamically implicated in each other. Bakhtin’s (1986) metaphor of chronotopes reminds us that spatiotemporal scales have to be addressed as connected and interrelated.

Scales are layered. There are not only many scales, thus opening up “context” to diversity, they are also relative to each other. For example, scales can accommodate nested or ladder relationships, providing possibilities to consider communication as shaped by layered influences. Though nesting and ladder are somewhat linear and hierarchical (i.e., one scale is more global or determinative than the other), some treat scales as rhizomatic to avoid those implications. Rhizome suggests that scales might influence talk in non-linear, unpredictable, and non-synchronous ways. We can thus invoke frames of different levels or magnitude for the way they relate to meanings and communicative outcomes. Scales enable us to move beyond the traditional binary of macro and micro or global and local, considering them as relative and interpolating each other in fluid ways.

Suresh Canagarajah

Scales are semiotic. They are not objectively out there, thus existing before analysis or interactions. They are constructed by institutions and people to understand or explain social interactions. They are mediated, negotiated, and established through semiotic activity.

Scales are changing. As scales are constructed and negotiated, social institutions and actors are actively involved in rescaling interactions.

Scales also help us address the distinction made between agency and structure in more complex ways. Agency is often assumed to thrive in the local scales, while the global is associated with more deterministic structures in traditional understandings of context. However, the nested and ladder orientation to scales help us understand how translocal scales shape the local. Similarly, the rhizomatic orientation to scale helps us understand how new structural arrangements may emerge from different spaces between the local and the global, reconfiguring each in unpredictable ways. More importantly, material environment is itself agentic and can rescale interactions, going beyond the notion of context as passive or human actors as fully agentic.

The distinction of scales as a *category of analysis* and *category of practice* can help us triangulate data and perspectives to home in on the appropriate unit and focus of analysis. Scales as a category of analysis is the frames that researchers adopt to study an interaction. Scales as a category of practice is the way participants frame and rescale their interactions. Though these uses of scales have been debated as conflicting (see Lempert 2012), they can also be productively brought together. While the scaling activity of participants provides an emic perspective on the interaction, we have to be open to the possibility that researchers can also adopt different scales as relevant, based on the questions they pose or problems they are trying to address. That is, the story researchers want to tell and the objectives they want to accomplish by analyzing communicative interactions would determine which scales become relevant and which semiotic resources are significant for that scale of consideration. Of course, they have to triangulate the data and analysis with the participants' own categories of practice, and evidence from extended and close fieldwork. Furthermore, the participants' perspective can be limited. The spatial orientation would suggest that the participants themselves are not always aware of all the environmental resources shaping and constraining their talk. Besides the reality of ideologically influenced misrecognition, we have to also contend with the limitations of human agency and cognitive control. Therefore certain non-visible scales of institutional or translocal relationships that shape our interaction should be accommodated in the analysis.

Other approaches have also been adopted to figure out the appropriate unit and focus of analysis in mobility. Blommaert, Spotti, and Van der Aa (this volume) suggest that the expanded fieldwork of ethnography would help researchers understand which scales and features become relevant for an interaction. Multisited and longitudinal studies that are sensitive to all variables in a communicative situation might help researchers to problematize the unit of analysis without predefining what is relevant for a given interaction. As they thus empirically determine the scales that are relevant, they would also attune themselves to the semiotic resources that play an important role in each scale in meaning-making activity. Blommaert et al. also mention that critical moments in an interaction (or a study) can make relevant certain unexpected semiotic features or scales that researchers hadn't considered before. The narrative mentioned earlier on how they accidentally discovered the online and virtual presence of the relative of their participant constituted a critical moment. Thereafter, they had to accommodate this distant and invisible member's presence in their interviews to understand the interactions appropriately.

Wortham and Reyes (2015) propose a "discourse analysis beyond the speech event" that would situate meaning-making activities in an expanded spatiotemporal scale and

problematize the indexicality of semiotic resources. They outline a hermeneutic process whereby semiotic resources can be tracked across time and space for the ways they acquire and change meanings, beyond the immediate face-to-face encounter. In this way, they develop a method for tracing emergent and achieved indexicality across time and space, beyond the traditional demarcations of physically circumscribed context or predefined meanings and norms. Though Wortham and Reyes discuss the construction of verbal meanings in diverse media (spoken, written, digital), they don't apply their model to extra-verbal resources (such as objects, images, or gestures). It is not impossible to imagine ways in which we can adopt their analytical method to diverse semiotic resources beyond those accommodated typically in verbal or multimodal analysis.

As we thus expand our focus and unit of analyses, we are also challenged to come up with new methods for observing interactions and collecting data. There are of course many challenges here that require creative resolutions. For example, though we know that meanings and interactions might be realized or enacted in diverse spatial and temporal scales simultaneously, researchers are physically limited to being in only one place at a time. Besides, there are resource limitations that might prevent researchers from studying interactions in multiple locations or employing collaborators in diverse places. A study of mobility requires observing flows, processes, and changes in diverse places and times simultaneously. Creative methods are being devised to overcome these challenges. The following are some examples of methodological innovations coming into prominence, which would be discussed in greater detail in the chapters in the handbook:

Multisited ethnography: As a corrective to traditional ethnography in which scholars studied cultural practices in a single location by becoming saturated into the practices of a community over a long period of time, scholars are spending shorter but more intensive periods of observations in multiple locations to study the continuities or connections in communicative practices. Though there is an attempt to develop an insider and emic perspective, there is also the realization that meaning or activity transcends the immediate context (see further Dick and Arnold, this volume).

Mobile methods: Within this label introduced by Buscher et al. (2011), research methods involve following participants, artifacts, or semiotic resources through multiple locations and times. In these methods, the researchers are themselves mobile, considering the liminal *spaces* of mobility (beyond the physical *place* or location) as their research setting. The authors review some illustrative approaches such as: following people, either directly by shadowing them or covertly “stalking” them (Buscher et al. 2011: 8); participating in people's movement through a walk-along or ride-along to experience the contexts and activities of subjects; obtaining time-space diaries from subjects to plot people's movements; exploring virtual mobility through blogs, emails, listservs, and tweets to capture the flow of texts and their meanings; and using mobile positioning devices which involve cell phones or other tracking devices to plot people's movements, networks, and frequencies. Obviously, there would be challenges in obtaining institutional approval and participant consent for some of these methods.

Participatory research: Many scholars are treating subjects themselves as co-researchers to gather information on their flows and movements, in addition to unveiling attitudes and experiences that researchers can't always have access to. These methods turn out to be full-bodied, providing access to participants' affect and imagination, beyond impersonal facts and figures. For example, researchers are gathering useful

Suresh Canagarajah

information from creative literature or dramatic performances written by migrants, which sometimes provide fictional representations that still provide significant insights into migrant experiences. Drama, autobiographies, and novels are useful texts for relevant data (as Baynham shows in his chapter in this volume). Along the same lines, narratives have emerged as significant tools for exploring experiences, attitudes, and relationships, often elicited by researchers themselves through sensitive but strategic interview questions (see DeFina and Tseng, this volume).

Mixed methods: A modest proposal is to adopt mixed methods to capture simultaneity. Boccagni (2012) proposes this as an approach to sample demographic movements through survey and quantitative methods, while zeroing in on specific locations for a qualitative study of migrant experiences.

Disciplinary implications

As we can see, migration and mobility have generated new orientations to language and social inquiry. They have helped scholars question some of the territorialized, bounded, static, and representational thinking in applied linguistics as in other fields in humanities and social sciences. The expansion of the scope and focus of analysis have resulted also in greater interdisciplinarity. There is a lot of borrowing and sharing of theoretical constructs and research methods in applied linguistics, humanities, and the social sciences. As we have seen in the preceding discussion, applied linguists has been borrowing theories and methods from diverse other disciplines to strengthen their inquiry. We have reviewed constructs from geography (i.e., Massey, Thrift), philosophy (Deleuze and Guattari, Bardotti), sociology (Latour, Urry), anthropology (Glick Schiller), and physics (Barad) in the preceding pages. However, other disciplines have not always benefited from the scholarship of applied linguistics. The latter is often treated as a service discipline to teach languages to migrant families, students, and workers, rather than valued for making intellectual contributions of its own. In this section, I want to articulate some ways in which migration studies can benefit from the scholarship of applied linguists.

First we have to acknowledge that applied linguistics has itself a lot of work left for redefining and retheorizing basic constructs in its field. After a period of positivistic/empirical inquiry when scholars moved in a settled trajectory towards final answers on key questions, adopting the structuralist and experimentalist orientation, there is now a realization that we might have to start all over again in the context of mobility. The observations of Kramersch on foreign language pedagogy are relevant to many other areas in applied linguistics:

There has never been a greater tension between what is taught in the classroom and what the students will need in the real world once they have left the classroom. In the last decades, that world has changed to such an extent that language teachers are no longer sure of what they are supposed to teach nor what real world situations they are supposed to prepare their students for.

(Kramersch 2014: 296)

Beyond pedagogy, her statement points to basic questions in proficiency and competence remaining unresolved. As we have discussed here, when meaning-making practices involve negotiating diverse semiotic resources in different spatiotemporal scales, we have to ask what it means to be proficient in a language. Is it relevant to define competence one language at a time, when people are shuttling between languages and, in fact, treating verbal resources

as floating signifiers that can be taken over for their communicative functions with desired indexicalities? Can we separate grammatical knowledge from the competence to use diverse other semiotic resources in achieving our communicative objectives? Is a language proficiency developed in terms of grammatical/verbal resources for separately labeled languages appropriate when communicative unpredictability is the norm, with interactions always involving interlocutors with diverse codes in mobility? Is it possible to define competence in terms of propositional knowledge when mobile spaces always present a diverse mix of participants with no norms or values shared for communication (thus requiring procedural knowledge)? As people are compelled to keep expanding their resources constantly, with new genres and changing communicative norms, we have to ask whether we can ever define a threshold level for assessing proficiency when one can stop learning or consider him/herself competent. There are similar questions for other domains in applied linguistics, such as language policy, testing, and literacy, which have been based on territorialized language norms and identities, with reductive notions of language as an autonomous and static system. We have to explore these questions in relation to diverse contexts, disciplinary insights, and emergent paradigms in ongoing inquiry.

As language has become important in mobile contexts for shaping identities, communities, and social practices, applied linguistics too has much to offer other disciplines. In recognition of this, many scholars in diverse fields are already using linguistic constructs in their disciplinary inquiry. Scholars in fields such as migration studies, geography, sociology, and anthropology are addressing language in their work. However, because they don't have familiarity with linguistics, their work is sometimes superficial or questionable. Though a formal training in applied linguistics is too much to ask for, an understanding of work relevant to their research questions might be convenient to obtain – as in this handbook. Next, I give examples of recent work in migration studies that can benefit from greater engagement with applied linguistics.

Consider the study of highly skilled migration. As mobile professionals are becoming key to innovation and productivity in the neoliberal economy, there has been considerable research interest on how language proficiency correlates with employment success in a new country. These studies have been conducted by those in geography and social sciences adopting quantitative and statistical approaches. These demographic studies show a positive correlation between those who are proficient in the dominant language of the host country and their economic success (see Dustmann 1994; Chiswick and Miller 1995, 2002, 2007; Dustmann and van Soest 2002; Dustmann and Fabbri 2003; Bleakley and Chin 2004). Many of these studies show that those who are proficient in English tend to be better employed, considering English as the global professional language. They also suggest that those who are from countries which provide an important place for English in their education or society (such as former British colonies, India or Singapore) are more successful, while those from countries which have lacked English exposure (i.e., West Asian or East European countries) tend to be less so. Williams and Balaz (2008: 29), reviewing many studies of this nature, summarize the rationale behind this body of research thus:

The classic human-capital perspective suggests that immigrants tend to adapt to their host countries via accumulating human capital. A critical element of human capital is fluency in the host country's language, which mediates their integration into that country's labor market.

These demographic and quantitative studies, however, overlook significant complicating information that applied linguists are aware of. They don't explore what languages are

Suresh Canagarajah

actually involved in professional communication (i.e., though subjects might be proficient in English, is that the only language they are using in their workplace?); the attitudes of the migrants towards the languages they use (i.e., though subjects might be proficient in English, do they value it over their other repertoires?); and the other forms of social capital that languages may or may not provide access to (i.e., is English the critical factor in professional success, or is it the social connections and professional status subjects may enjoy through English?). This tradition of migration studies has to be qualified by knowledge from interactional sociolinguistics and ethnographies on attitudes and practices in workplace communication (see for example Kubota 2013; Canagarajah 2016; Kirilova and Angouri, this volume; Lising, this volume). Such studies point to the following. To begin with, languages cannot be essentialized. For example, English is not a monolithic or homogeneous language. The Englishes spoken by Indians and Nigerians are very different from the varieties that are privileged by native speakers in the UK or United States. Besides, there are strong biases against the varieties spoken by postcolonial subjects in native speaker communities. Therefore, treating the proficiency of the speaker and the norms of the host community as equal is misleading. Furthermore, applied linguists who study language negotiations and social practice in situated interactions would question the equation of formal proficiency (judged in terms of standardized tests such as TOEFL or IELTS) with actual communicative practices and outcomes in workplaces. The communicative practice in situated social interactions can have little relevance to the grammatical norms in tests. Workplace communication studies show many diverse possibilities (see Kubota 2013; Canagarajah 2016); that is, transnational and multilingual workers may not use the privileged languages or norms in their interaction; they typically use truncated multilingualism (i.e., bits and pieces of diverse languages successfully); and verbal resources may matter less where material and physical resources (artifacts, gestures, etc.) might be more important. Therefore, an understanding of the diversity of communicative practices from applied linguistics would fruitfully complicate demographic studies and correlationist claims in migration studies, leading to more triangulated data and nuanced interpretations.

The social scientific research cited earlier also tends to shape policy and pedagogy. Based on the assumption that a proficiency in host country language is important for professional relationships, policies on workplace employment in many countries emphasize a formal proficiency in English. There are policies of English Only or monolingualism in many workplaces that penalize nonnative varieties or other languages in professional communication (see Kirilova and Angouri, this volume; Lising, this volume). Employment policies in many countries (such as Canada, Australia, the UK, and New Zealand) mandate a high score on the IELTS (International English Language Testing System) for qualification or selection. Immigration to such countries on work visas also emphasize a high score on such tests. Under pressure to perform well in these requirements, there is a global scramble to learn English (Piller and Cho 2013). There is a belief that English is the linguistic capital everyone needs for success in the neoliberal economy, leading to the commodification of English and marketization of testing instruments such as TOEFL and IELTS. However, applied linguistics studies on workplace interactions (as reviewed earlier and presented in the chapters in this volume) and interviews with migrant professionals (see Kubota 2013; Canagarajah 2016) show that workplace communication is much more multilingual, multimodal, and polysemiotic, differing from the normative and formal requirements of these tests and policies. Multilingualism can account for efficiency and productivity, countering the policy perspective that shared codes and universal norms lead to such outcomes (as reviewed critically by Grin 2001). More importantly, beyond

language norms, we are finding that dispositions of tolerance, lifelong learning, and collaboration are more critical for social and employment success as migrants are able to engage with diversity and expand their repertoires for a diverse workplace and society. Therefore, a greater familiarity with the qualitative and situated interactional studies of applied linguists will help formulate more relevant pedagogies and policies for professional migration.

To consider another line of inquiry in migration studies, the tradition of studies on social adjustment of migrant students in host country schools adopts the construct linguistic distance/similarity to explain their success. These studies project how students who come with a language background that is similar to the language of schooling in the host community are more successful (see Beenstock, Chiswick, and Repetto 2003; Chiswick and Miller 2005). From this perspective, German students from Germany would be considered more successful in the United States, as English and German belong to the same family of languages, unlike Tamil students whose language family is Dravidian. However, claims about difficulty of acquisition based on language distance have been debunked in applied linguistics (Li Wei 2000). It is quite possible for similar languages to generate challenges in keeping them apart during learning. It has also been argued that projections of language similarity or distance are subjective and impressionistic. Furthermore, the pedagogical implications are based on the linguistic interference hypothesis, which ignores additive and dynamic orientations to acquisition that posit languages enabling each other and leading to more complex competencies (see García 2009). Projecting interference and difficulty based on language structure is unduly deterministic.

Another area of migration studies which might benefit from applied linguistic scholarship is scalar analysis on how cities, economies, communities, and institutions are being rescaled in the context of mobility (see collection of studies in Glick Schiller and Simsek-Caglar 2011a). For example, small American or European towns are integrated into global capital flows with the influx of migrants. So far, geographers, anthropologists, and political scientists have adopted broad social and material factors (such as new social relationships, institutions, and artifacts – see Swyngedouw 1997; Uitermark 2002; Glick Schiller and Simsek-Caglar 2011a) to demonstrate rescaling. However, applied linguists are able to demonstrate how fine-grained semiotic resources are adopted by subjects for rescaling purposes (Clonan-Roy, Rhodes, and Wortham 2016; Dong and Blommaert 2016). Features such as contextualization cues (lexical, syntactic, and phonological switches), semiotic processes (such as narratives, language ideologies, social positioning), and framing devices (such as participant structures) may help social scientists attend to the ways scaling processes take place at the micro-social level. They can provide fine-grained evidence at the level of micro-analysis of talk on how subjects orientate to particular scalar dimensions in their interactions. For example, Lempert (2012) demonstrates the rescaling practices of his subjects by drawing from linguistic cues as well as physical postures, material resources, and institutional changes, exemplifying the value of applied linguistic tools for social scientists.

Though there is evidence that researchers in migration studies are beginning to borrow from work in applied linguistics (see Valentine, Sporton, and Bang Nielsen 2008; Fast 2012; Bailey, Mupakati, and Magunha 2014), more sharing and collaboration will facilitate interdisciplinary synergies – which we hope this handbook generates. The separation of scholarly fields is itself a result of the territorialization and boundary making designs of modernity, which mobility problematizes. Those attuned to mobility have advocated “border thinking” (Mignolo 2000) or “nomadic theory” (Braidotti 2013) that engages the liminal spaces between disciplines and paradigms for knowledge making.

Suresh Canagarajah

Cautions and qualifications

As we continue explorations on this productive disciplinary space at the nexus of language and mobility, we have to be also cautious of exaggerating the mobility turn. How wise it is to adopt mobility as the dominant construct to perceive social and communicative life? Faist asks, “Is mobility really a human universal, as anthropologists tell us?” (Faist 2013: 1644). We have to first recognize that a desire to be “placed” (i.e., establishing homes, valuing rootedness, and inhabiting sovereign geopolitical spaces) is equally human. Rather than treating mobility and sedentariness as dichotomies, we should consider them as relational and interconnected. Even as people are mobile, they are constructing new homes. Migrants construct new in-groups and diaspora communities that celebrate heritage languages and cultures (though not without changes to the way they have been traditionally defined). Migrants are also constructing new homes, neighborhoods, and communities constituting diverse people and languages, going beyond their traditional identities and affiliations. These examples show that place, home, and community are compelling needs for everyone. What is different from previous paradigms is that these spaces and habitations are not treated as essentialized, homogeneous, bounded, or primordial. In other words, these spaces are socially and linguistically constructed in mobility. They are also relational, constructed relative to other social groups. They exist side by side with other communities and feature diversity. Therefore, such homes and spaces are constructed from *within* mobility, contact, and diversity – not outside. Consider the Arabic neighborhoods in many European cities that feature a mix of Middle Eastern communities, with different ethnicities, religious practices, languages, and sects, but still consider themselves cohesive and placed.

It is also important to theorize forms of immobility as we study mobility. There are new forms of border making that are coming up to prevent and surveil certain groups in mobility. The discourses of securitization and policies of surveillance are gaining more ground in Europe and other Western countries. The surge of refugees from conflict zones is not only an unpleasant form of mobility that is less studied or theorized in scholarly circles; it is also generating new policies that restrict movement. Discourses of citizenship and nationalism are also counteracting the treatment of mobility as desirable. One might say that intensified forms of mobility are generating intensified resistance in the form of increased policies and regulations for border control, boundary making, and sovereign spaces. Furthermore, we shouldn't ignore differential material access for mobility. There are people who don't have the resources or possibilities for geographical or social mobility.

However, all this doesn't mean that people occupy a static and homogeneous social space. The mobility paradigm helps us to consider how all of us are implicated in mobility, even those who don't move. All of us inhabit spaces marked by and shaped by mobility, though some may experience relative immobility. For example, even though some long-standing local residents in my American university town have not traveled much, their lives are shaped by diversity and contact as they live side by side with students and faculty members who are international. They are starting businesses that cater to mobile citizens, develop languages and cultural values from elsewhere, and inhabit a place marked by diversity around them. On the other hand, many of my compatriots in Sri Lanka who don't have the resources to flee elsewhere as refugees still receive remittances from their relatives abroad, implicating their lives in mobility. Therefore, we have to examine the different causes and consequences of relative immobility for some in an economy and geopolitics based on migration. However, both mobile and relatively immobile people live in spaces marked by transnational relations

and contact zones. In that sense, mobility does shape everyone's life, whether physically migrating or not.

We have to also interrogate the current neoliberal dispensation, in which mobility has been treated as a new and desirable norm for everyone. There is a tendency to consider mobility as more progressive, and sedentariness as backward and traditional. Neoliberal discourses also treat mobility as an economically and socially equalizing global process. These assumptions are bolstered by neoliberal ideologies which treat open competition in the free market, sometimes transcending nation-state boundaries, as ensuring opportunities for everyone. Therefore, Faist asks "whether mobility is a new norm, that is, whether nomadism is replacing sedentarism as one of the dominant principles of social order" (Faist 2013: 1644). As we consider this question, we have to grapple with the fact that mobility is unequal and reproduces inequality. For example, in labor migration, while educated professionals are considered "wanted and welcome," less skilled workers are "wanted but not welcome" (Zolberg 1987). While both groups of workers participate in mobility, they receive differential treatment and economic rewards. We have to also understand how certain social groups pay a higher cost for mobility. It is well known that mobility in this way is gendered. There are cases of men migrating for work, letting women alone in the home country to manage the family. In reverse, there are occupations such as maids and nurses where women are more mobile and their caregiving disposition is abused for labor. They then receive less time and opportunity to care for their own families. Their children too pay the price for this mobile work opportunity.

In the hands of neoliberalism, mobility is becoming exploitative for the profit-making interests of a few (see collection of critical articles in Glick Schiller and Faist 2010). Mobility is regulated by neoliberal establishments for their own profit. From this perspective, certain trajectories and channels of migration are preferred (i.e., certain types of work in certain locations) while others are dispreferred (i.e., the movement of refugees to Europe). The global flow of talent and resources, with a translocal network of production and marketing, is playing into neoliberal hands to be orchestrated by those with resources to control these flows. As production places are moved from place to place in search of cheap labor and resources, local communities are losing their share of material benefits. We also know that local communities find their ecological and cultural resources exploited or destroyed in the name of production. Mobility can thus be a threat to local communities and ecologies. Consider also the way local communities find their relationships rescaled and integrated into translocal production and economic networks, in the face of mobile companies and networks, losing their sovereignty.

From these perspectives, it is important to approach language and mobility from nuanced, balanced, and critical perspectives as we collaborate across disciplines to study this important human experience. As mobility becomes increasingly discursively constructed this productive disciplinary space should lead to more inclusive scholarly constructs and policy proposals.

Organization

This handbook is structured into four parts. Part I examines how basic constructs such as community, place, language, diversity, identity, nation-state, and social stratification are being retheorized in the context of human mobility. The authors examine the limitations of traditional assumptions as they explore the implications of new theoretical realizations for the way we study familiar applied linguistic concerns such as competence, pedagogy, and policy.

Suresh Canagarajah

Part II considers diverse trajectories and flows of human mobility in relation to language. The authors explore South/South mobility as much as the better discussed South/North mobility; less skilled and indentured workers as much as skilled professionals; displacement in many forms to balance agentive mobility; new linkages in the form of diaspora communities; and different trajectories such as chain, step, circular, and return migration.

Part III samples emergent research methods for studying language and mobility. Contributors examine ways of conducting ethnography in multiple sites, redefining the relationship between context/text in more complex ways, adopting expressive literature and arts to study the role of affect and desire in mobility, utilizing narratives and scalar analysis for studying mobility, and charting the trajectories of traveling texts in literacy.

Part IV deals with policy implications as they pertain to language and mobility. Contributors examine policies in schools, workplaces, service agencies, and governmental and nongovernmental institutions. The section also examines the implications of mobility for education and pedagogy in diverse levels of learning.

The handbook brings together international applied linguists with affiliations in diverse universities around the world and homes in different academic departments. The contributors come from institutions in Australia, Belgium, Canada, China, Denmark, Germany, the Netherlands, New Zealand, the Philippines, Singapore, South Africa, Spain, and Switzerland, in addition to the UK and United States. They boast of social backgrounds and research experience around the world. Given this diversity, there is the need to introduce their scholarship to each other. An important function of this handbook is that it becomes a “who’s who” in the study of language and migration in applied linguistics. The authors have adopted a language and style that makes the chapters accessible to graduate students and advanced scholars in cognate fields in applied linguistics and those engaged in exploring language and mobility in diverse disciplines.

References

- Anthony, D. W. (1990). Migration in archaeology. *American Anthropologist* 92(4): 895–914.
- Anthony, D. W. (2007). *The Horse, the Wheel, and Language: How Bronze-Age Riders from the Eurasian Steppes Shaped the Modern World*. Princeton, NJ: Princeton University Press.
- Atkinson, D., Churchill, E., Nishino, T. and Okada, H. (2007). Alignment and interaction in a sociocognitive approach in second language acquisition. *Modern Language Journal* 91: 169–188.
- Bailey, A., Mupakati, L. and Magunha, F. (2014). Misplaced: Language, remitting and development practice among Zimbabwean migrants. *Globalisation, Societies and Education* [online]. doi:10.1080/14767724.2014.937404
- Bakhtin, M. M. (1986). *Speech Genres and Other Late Essays* [Translated by V.W. McGee]. Austin: University of Texas Press.
- Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
- Bauman, R. and Briggs, C. L. (2000). Language philosophy as language ideology: John Locke and Johann Gottfried Herder. In P. V. Kroskrity (ed.), *Regimes of Language: Ideologies, Politics, and Identities* (pp. 139–204). Oxford: James Currey.
- Bauman, Z. (1998). *Globalization: The Human Consequences*. New York: Columbia University Press.
- Beenstock, M., Chiswick, B. R. and Repetto, G. L. (2003). The effect of linguistic distance and country of origin on immigrant language skills: Application to Israel. *International Migration* 39(3): 33–60.
- Bjorkman, B. (2014). An analysis of polyadic English as a Lingua Franca (ELF) speech: A communicative strategies framework. *Journal of Pragmatics* 66: 122–138.

- Bleakley, H. and Chin, A. (2004). Language skills and earnings: Evidence from childhood immigrants. *Review of Economics and Statistics* 84(2): 481–496.
- Block, D. (2014). Moving beyond “lingualism”: Multilingual embodiment and multimodality in SLA. In S. May (ed.), *The Multilingual Turn: Implications for SLA, TESOL, and Bilingual Education* (pp. 54–77). New York: Routledge.
- Blommaert, J. (2005). *Discourse: A Critical Introduction*. Cambridge: Cambridge University Press.
- Blommaert, J. (2010). *The Sociolinguistics of Globalization*. Cambridge: Cambridge University Press.
- Boccagni, P. (2012). Even a transnational social field must have its boundaries: Methodological options, potentials and dilemmas for researching transnationalism. In C. Vargas-Silva (ed.), *Handbook of Research Methods in Migration* (pp. 295–318). Cheltenham: Edward Elgar.
- Boutet, J. (2012). Language workers: Emblematic figures of late capitalism. In A. Duchene and M. Heller (eds.), *Language in Late Capitalism* (pp. 207–229). New York: Routledge.
- Braidotti, R. (2013). *The Posthuman*. Cambridge: Polity.
- Buscher, M., Urry, J. and Witchger, K., eds. (2011). Introduction: Mobile methods. In *Mobile Methods* (pp. 1–19). London: Routledge.
- Byram, M. (2008). *From Intercultural Education to Education for Intercultural Citizenship*. Clevedon: Multilingual Matters.
- Cameron, C. (2013). How people moved among ancient societies: Broadening the view. *American Anthropologist* 115(2): 218–231.
- Canagarajah, A. S. (2013). *Translingual Practice: Global Englishes and Cosmopolitan Relations*. London: Routledge.
- Canagarajah, A. S. (2016). *Translingual Practices and Neoliberal Policies: Attitudes and Strategies of African Skilled Migrants in Anglophone Workplaces*. Berlin: Springer.
- Canagarajah, A. S. (forthcoming a). The unit and focus of analysis in Lingua Franca English interactions: In search of a method. *International Journal of Bilingual Education and Bilingualism*.
- Canagarajah, A. S. (forthcoming b). English as a spatial resource: Explaining the claimed competence of Chinese STEM professionals. In *World Englishes*.
- Canagarajah, A. S. and DeCosta, P. (2016). Introduction: Scales analysis, and its uses and prospects in educational linguistics. *Linguistics and Education* 34: 1–10.
- Chiswick, B. R. and Miller, P. W. (1995). The endogeneity between language and earnings. *Journal of Labour Economics* 13(2): 246–288.
- Chiswick, B. R. and Miller, P. W. (2002). Immigrant earnings: Language skills, linguistic concentrations and the business cycle. *Journal of Population Economics* 15(1): 31–57.
- Chiswick, B. R. and Miller, P. W. (2005). Linguistic distance: A quantitative measure of the distance between English and other languages. *Journal of Multilingual and Multicultural Development* 26: 1–11.
- Chiswick, B. R. and Miller, P. W. (2007). *The International Transferability of Immigrants’ Human Capital Skills*. IZA Discussion Papers 2670, Institute for the Study of Labor (IZA). Retrieved from <ftp://repec.iza.org/RePEc/Discussionpaper/dp2670.pdf> [Accessed 24 February 2011].
- Clonan-Roy, K., Rhodes, C. and Wortham, S. (2016). Moral panic about sexual promiscuity: Heterogeneous scales in the identification of one middle-school Latina girl. *Linguistics and Education* 34: 11–21.
- De Certeau, M. (1984). *The Practice of Everyday Life* [Translated by S. Rendall]. Berkeley: University of California Press.
- Deleuze, G. and Guattari, F. (1987). *A Thousand Plateaus*. Minneapolis: University of Minnesota Press.
- Dong, J. and Blommaert, J. (2016). Global informal learning environments and the making of Chinese middle class. *Linguistics and Education* 34: 33–46.
- Dustmann, C. (1994). Speaking fluency, writing fluency and earnings of migrants. *Journal of Population Economics* 7: 133–156.
- Dustmann, C. and Fabbri, F. (2003). Language proficiency and labour market performance of immigrants in the UK. *Economic Journal* 113: 695–717.

Suresh Canagarajah

- Dustmann, C. and van Soest, A. (2002). Language and the earnings of immigrants. *Industrial and Labor Relations Review* 55(3): 473–492.
- Faist, T. (2013). The mobility turn: A new paradigm for the social sciences? *Ethnic and Racial Studies* 36(11): 1637–1646.
- Faist, T., Fauser, M. and Reisenauer, E. (2013). *Transnational Migration*. Cambridge: Polity.
- Fast, H. (2012). *Language-use as Spatial Experience: Migrants' Non-fluent Participation in Stabilisations of Linguistic Practice*. Master's thesis, Department of Geography, Utrecht University, Utrecht.
- Firth, A. and Wagner, J. (2007). Second/foreign language learning as a social accomplishment: Elaborations on a reconceptualized SLA. *Modern Language Journal* 91: 798–817.
- García, O. (2009). *Bilingual Education in the 21st Century: A Global Perspective*. Oxford: Wiley-Blackwell.
- Glenn, C. (2004). *Unspoken: A Rhetoric of Silence*. Carbondale: Southern Illinois University Press.
- Glick Schiller, N. and Simsek-Caglar, A., eds. (2011a). *Locating Migration: Rescaling Cities and Migrants*. Ithaca: Cornell University Press.
- Glick Schiller, N. and Simsek-Caglar, A. (2011b). Locality and globality: Building a comparative analytical framework in migration and urban studies. In N. Glick Schiller and A. Simsek-Caglar (eds.), *Locating Migration: Rescaling Cities and Migrants* (pp. 60–84). Ithaca: Cornell University Press.
- Glick Schiller, N. and Faist, T. (2010). *Migration, Development and Transnationalization: A Critical Stance*. New York: Berghahn Books.
- Goffman, E. (1983). The interaction order. *American Sociological Review* 48: 1–17.
- Goodwin, C. (2000). Action and embodiment within situated human interaction. *Journal of Pragmatics* 32: 1489–1522.
- Graff, H. (1991). *The Literacy Myth: Cultural Integration and Social Structure in the Nineteenth Century*. New York: Transaction.
- Grin, F. (2001). English as an economic value: Facts and fallacies. *World Englishes* 20(1): 65–78.
- Hall, S. (1997). Old and new identities, old and new ethnicities. In A. D. King (ed.), *Culture, Globalization, and the World System* (pp. 41–68). Minneapolis: University of Minnesota Press.
- Harvey, D. (2005). *A Brief History of Neoliberalism*. Oxford: Oxford University Press.
- Heller, M. and Duchene, A. (2012). Pride and profit: Changing discourses of language, capital, and nation-state. In A. Duchene and M. Heller (eds.), *Language in Late Capitalism* (pp. 1–22). New York: Routledge.
- Hoerder, D. (2002). *Cultures in Contact: World Migrations in the Second Millennium*. Durham, NC: Duke University Press.
- Jacquemet, M. (2005). Transidiomatic practices: Language and power in the age of globalization. *Language and Communication* 25(3): 255–277.
- Kleifgen, J. (2013). *Communicative Practices at Work: Multimodality and Learning in a High-Tech Firm*. Bristol: Multilingual Matters.
- Kramsch, C. (2014). Teaching foreign languages in an era of globalization: Introduction. *Modern Language Journal* 98(1): 296–311.
- Kress, G. (2000). Multimodality: Challenges to thinking about language. *TESOL Quarterly* 34(2): 337–340.
- Kress, G. (2010). *Multimodality: A Social Semiotic Approach to Contemporary Communication*. New York: Routledge.
- Kubota, R. (2013). “Language is only a tool”: Japanese expatriates working in China and implications for language teaching. *Multilingual Education* 3(4): 1–20.
- Kuznetsov, Y., ed. (2006). *Diaspora Networks and the International Migration of Skills*. Washington, DC: World Bank.
- Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, MA: Harvard University Press.
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-network-theory*. Oxford: Oxford University Press.

- Lempert, M. (2012). Interaction rescaled: How monastic debate became a diasporic pedagogy. *Anthropology & Education Quarterly* 43(2): 138–156.
- Levitt, P. and Glick Schiller, N. (2004). Conceptualizing simultaneity: A transnational social field perspective on society. *Annual Review of Sociology* 33: 129–156.
- Li Wei (2000). Dimensions of bilingualism. In Li Wei (ed.), *The Bilingual Reader* (pp. 2–21). London: Routledge.
- Marston, S., Jones, J. and Woodward, K. (2005). Human geography without scale. *Transactions of the Institute of British Geographers* 30(4): 16–432.
- Massey, D. (2005). *For Space*. London: Sage.
- Matsumoto, Y. (2015). *Multimodal Communicative Strategies for Resolving Miscommunication in Multilingual Writing Classrooms*. Dissertation submitted to Penn State University.
- May, S., ed. (2014). *The Multilingual Turn: Implications for SLA, TESOL, and Bilingual Education*. New York: Routledge.
- Mezzadra, S. and Neilson, B. (2013). *Border as Method, or, the Multiplication of Labor*. Durham: Duke University Press.
- Mignolo, W.D. (2000). *Local Histories/Global Designs: Coloniality, Subaltern Knowledges, and Border Thinking*. Princeton: Princeton University Press.
- Pavlenko, A. (forthcoming). Superdiversity and why it isn't: Reflections on terminological innovation and academic branding. In *Sloganzations in Language Education Discourse*.
- Pennycook, A. and Otsuji, E. (2015). *Metrolingualism: Language in the City*. Abingdon: Routledge.
- Pigg, S. (2014). Emplacing mobile composing habits: A study of academic writing in networked social spaces. *College English* 66(2): 250–275.
- Piller, I. and Cho, J. (2013). Neoliberalism as language policy. *Language in Society* 42: 23–44.
- Pitzl, M.-L. (2010). *English as a Lingua Franca in International Business*. Saarbrücken: Verlag.
- Pollock, S. (2006). *The Language of the Gods in the World of Men: Sanskrit, Culture, and Power in Premodern India*. Los Angeles: University of California Press.
- Pratt, M.L. (1987). Linguistic utopias. In N. Fabb, D. Attridge, A. Durant and C. MacCabe (eds.), *The Linguistics of Writing: Arguments between Language and Literature* (pp. 48–66). Manchester: Manchester University Press.
- Rampton, B. (2008). *Language in Late Modernity: Interaction in an Urban School*. Cambridge: Cambridge University Press.
- Rickert, T. (2013). *Ambient Rhetoric*. Pittsburgh: University of Pittsburgh Press.
- Schachner, G. (2010). *Population Circulation and the Transformation of Ancient Zuni Communities*. Tucson: University of Arizona Press.
- Seidlhofer, B. (2004). Research perspectives on teaching English as a Lingua Franca. *Annual Review of Applied Linguistics* 24: 209–239.
- Smotrova, T. and Lantolf, J.P. (2013). The function of gesture in lexically focused L2 instructional conversations. *Modern Language Journal* 97(2): 397–416.
- Steenstig, J. (2013). Conversation analysis and affiliation and alignment. In C. Chapelle (ed.), *Encyclopedia of Applied Linguistics* [Online]. Wiley-Blackwell. doi:10.1002/9781405198431.wbeal0196
- Stein, P. (2000). Rethinking resources: Multimodal pedagogies in the ESL classroom. *TESOL Quarterly* 34(2): 333–336.
- Swyngedouw, E. (1997). Neither global nor local: Glocalization and the politics of scale. In K.R. Cox (ed.), *Spaces of Globalization: Reasserting the Power of the Local* (pp. 137–177). New York: Guilford Press.
- Thrift, N. (2007). *Non-representational Theory: Space, Politics, Affect*. London: Routledge.
- Uitermark, J. (2002). Re-scaling, “Scale fragmentation” and the regulation of antagonistic relationships. *Progress in Human Geography* 26(6): 743–765.
- Urry, J. (2000). *Sociology beyond Societies: Mobilities for the Twenty-First Century*. London: Routledge.
- Valentine, G., Sporton, D. and Bang Nielsen, K. (2008). Language use on the move: Sites of encounter, identity, and belonging. *Transactions of the Institute of British Geographers* 33: 376–387.
- Vertovec, S. (2007). Super-diversity and its implications. *Ethnic and Racial Studies* 30(6): 1024–1054.

Suresh Canagarajah

- Vertovec, S. and Cohen, R., eds. (2002). *Conceiving Cosmopolitanism*. Oxford: Oxford University Press.
- Wenger, E. (1998). *Communities of Practice*. Cambridge: Cambridge University Press.
- Williams, A. M. and Balaz, V. (2008). *International Migration and Knowledge*. London and New York: Routledge.
- Wimmer, A. and Glick Schiller, N. (2002). Methodological nationalism and beyond: Nation-state building, migration, and the social sciences. *Global Networks* 2(4): 301–334.
- Wortham, S. and Reyes, A. (2015). *Discourse Analysis beyond the Speech Event*. Abingdon: Routledge.
- Zelinsky, W. (1971). The hypothesis of mobility transition. *Geographical Review* 61(2): 219–249.
- Zolberg, A.R. (1987). “Wanted but not welcome”: Alien labor in western development. In William Alonso (ed.), *Population in an Interacting World* (pp. 36–73). Cambridge, MA: Harvard University Press.

1 Introducing posthumanist applied linguistics

This book asks how thinking along posthumanist lines can enhance our work in applied linguistics. Posthumanist thought is a fairly broad and at times chaotic field but at its heart is the question of what it means to be human. But why, one might ask, question the notion of humanity, particularly at this moment in history? We are arguably living at a point of major historical disjuncture, with millions of refugees struggling to find alternative places to survive among increasingly reluctant and hostile hosts while walls and fences become the new response to mobile populations; with the rise of trenchant forms of xenophobic and isolationist populism in Europe, the USA and elsewhere driving deep divides between people of different backgrounds and faiths while new forms of religious fundamentalism draw deeper battle lines between people; with the redistribution of income away from labour and towards profit bringing greater inequality as capital is concentrated in the hands of the very rich while huge economic disparities are ideologically normalized; with a new emergent class of mobile, impoverished and insecure workers supporting growing extravagances by the wealthy while the very idea of welfare and the public good is increasingly on the retreat; with human rights abuses escalating in many parts of the world while the idea of universal justice struggles to make those abusers accountable.

Why, one might ask, amid all this, retreat from the idea of humanity? Isn't the idea of our shared humanity the strongest argument to counter racism, sexism, homophobia or any other forms of discrimination against our fellow humans? Aren't human rights one of the few successes we can celebrate as we head backwards from a path of liberal democracy? Isn't a call to posthumanism a denial of the human contract that helped humanity survive as a species through the last few centuries? Isn't a common sense of what it means to be human – humanity not just as a species but as a moral project – the only way of saving ourselves from ourselves? And yet, while a view of the triumphant goodness of human nature might provide grounds for optimism, human destructiveness towards each other and the planet does not suggest that a focus on humans above all others is a likely solution.

Might it not now be time to think ourselves out of the dilemmas we find ourselves in not by appeal to a belief in the idea of the noble human, of some vague and implausible universal notion such as human nature – concepts that have become remarkably suspect in recent times – but by rethinking our relation to everything we consider non-human: animals, objects, nature, the environment and much more?

Introduction

This first chapter takes up such questions and argues that posthumanism offers us alternative ways of thinking about the human predicament that present new political and intellectual possibilities. The posthuman condition, suggests Braidotti (2013, pp1–2), “introduces a qualitative shift in our thinking about what exactly is the basic unit of common reference for our species, our polity and our relationship to the other inhabitants of this planet”. This book is an attempt to come to terms with this challenge for how we think about this basic unit of the human and where it sits in relation to everything around us (or why, to start with, we think in terms of humans as distinct from all that surrounds us). Of equal importance for this book is the question of why this matters for applied linguistics – why a posthumanist applied linguistics suggests important ways of thinking about language, the individual, context, cognition and communication that open up new avenues for research and education.

The planet, the people, animals and objects

Posthumanist thought asks how and why we might want to get beyond the anthropocentrism that bedevils our understanding of ourselves. An example (Hutchins, 1995, p81) of how easily we fall into anthropocentric thought might be useful. Get up at dawn (or imagine you are doing so), point at the sun and imagine this line extending through space to the sun. Then repeat the activity at midday: point at the sun and imagine the line going to the sun. Then ask yourself where these two lines intersect. Think about this. Where do the two lines intersect? The common answer seems to be, well, me. They intersect at me, the pointer. But think again. They in fact intersect at the sun. The earth and the pointer have moved (not the sun) and these two lines converge from different positions at the sun, not at the pointer (we’ll come back to pointing later, in Chapter 5). So much for the Copernican revolution. This serves as a good illustration of the ways in which, despite all the supposed moves to decentre humans, we as humans have not been able to make the bigger leap into a decentred, posthuman landscape. We need, as Bogost puts it (2012, p3), to escape the “tiny prison of our own devising” to which we have confined ourselves, and in which our only concerns are “the fleshy beings that are our kindred and the stuffs with which we stuff ourselves”.

Hutchins (1995) in fact uses this example to point out not merely our anthropocentrism but also our inability to grasp the worldviews of other humans. In his discussion of Pacific Island navigation (a major theme in his work on distributed cognition, and to which we shall return in Chapter 3) he explains how navigators assume a stationary canoe in relation to a moving island and its position relative to the stars. This conception (which has worked remarkably for thousands of years up to the present), with the world moving towards a stationary canoe, appears egocentric to Western navigators with their different conceptualization of ships’ movements in relation to a fixed set of bearings. Hutchins gives the example of pointing at the sun at different times of the day to show how difficult it can be to shift our orientation from one centrism to another, raising an important further point for the discussion here. Not only are there problems with the egocentricity of anthropocentrism, but humanism has also been consistently blind to human difference. Despite its claims to describe a common human condition, humanism has long been

Introduction

both exclusionary – it was never a category that included everyone – and specific to a particular version of humans.

It is on such grounds that some, such as Braidotti (2013, p16), take up a specifically anti-humanist position, asking why, as a woman, she would want to be a member of a category (human) that has been so consistently exclusionary: “I am none too fond of Humanism or of the idea of the human which it implicitly upholds”. Humanism generally assumes a fixed universal commonality for all humans, and as many critics of this position have remarked, this position was all too often Western, Educated, Industrialized, Rich and Democratic (WEIRD) (Henrich *et al.*, 2010). We might add White, Male and Straight to that list. For Braidotti (2013, p23), this anti-humanism “consists of de-linking the human agent from this universalistic posture, calling him to task, so to speak, on the concrete actions he is enacting”.

From a feminist anti-humanist point of view, the issue is not to seek entry into the exclusive category of the human but rather to seek to unravel an idea that has never been as open as it claims. This supposed human universalism cannot grasp the different cosmology of the Polynesian sailors just as we may struggle to see that the lines pointing at the sun must intersect there, not here. We do not necessarily need to take up an overt anti-humanism to see that there is something very troubling about the anthropocentrism at the heart of humanism.

So anthropocentric are we, indeed, that we have now named a geological era after ourselves: the Anthropocene. On the plus side, however, this naming of the Anthropocene both acknowledges the destructive force that humans have become for the rest of the planet, and raises significant questions about how we might understand humans and nature in different ways. The assumptions of modernity – that nature is external, a resource to be exploited, that humans are separate, self-governing, on an upward spiral of self-improvement to escape the limits of nature – are coming under scrutiny as the implications of the Anthropocene are taken up in different fields. As Chakrabarty has remarked (2009, p209), once the historical and philosophical challenges posed by climate change force us to consider humans as “a force of nature in the geological sense”, the relation between humans and history and humans and nature change considerably (Chakrabarty, 2015). For Latour (2015, p146), the Anthropocene may help us finally reject the “separation between Nature and Human that has paralysed science and politics since the dawn of modernism”.

The challenges posed by human destructiveness, environmental degradation, diminishing resources and our treatment of animals present a range of ethical and political concerns that are deeply interconnected with struggles around neoliberalism, racism, gender equity, forced migration and many other forms of discrimination and inequality. The world is going through a major period of transformation as we see the centre of power shifting from the West (the dominance of Europe and the USA and their languages, cultures and imperial politics) back to the East and the Silk Roads that link across the great Asian land mass (Frankopan, 2015). The rallying cry that brought Donald Trump to the US presidency – *Make America Great Again* – is a symptom of passing American power, as the final struggles to hold on to control of wealth and ideology by invading Afghanistan and Iraq are fought out. The Shanghai Co-Operation Organization (SCO) that was set up to link Russia, Kazakhstan,

Introduction

Kyrgyzstan, Tajikistan, Uzbekistan and China is becoming a major force, and as this new Silk Road Economic Belt, as this *One Road, One Belt* (一帶一路) grows, it is no longer the EU that countries such as Turkey wish to join. And with this shift in global power comes major ideological change: the notion of the human that was at the centre of Western notions of humanity, humanism and human rights is being seen not as a category of universal commonality but rather as a cultural, temporal and geographical idea from what is now becoming the new periphery.

This shift is also accompanied by serious challenges in terms of climate change, population growth, resource scarcity and urbanization, as well as major shifts in technology and communication. There are significant changes underway to the ways in which the human *somatic niche* (Berson, 2015) – the ecological space that our bodies have produced – is constructed and experienced. Not only is climate change having profound effects on the lives of many – Pacific Islanders and people in the Philippines, for example, have suffered hugely as both the intensity and the pathway of typhoons cause devastation to people’s lives and livelihoods – but many other changes to the somatic niche are changing the way we live. Urbanicity and the growth of large cities, with the particular effects of “urban tempo” (Berson, 2015, p74), is changing the lives of increasing numbers and proportions of people. Sites of mobility and impermanence – the bus station, sea or airport, the fishing boat or inflatable dinghy crowded with asylum seekers, the temporary camps of mobile people waiting on the borders between Turkey and Europe, Kenya and Sudan – are now central to human life.

The speed of social change, and the lack of old supports that once provided food, clothing, medicine or education, have produced new forms of precarity – indeed, a whole new *precarariat* class of mobile workers across construction sites, care industries, domestic work and other low-paid jobs with minimal levels of security, support or protection (Standing, 2014). Changing relations between humans and other animal species, such as livestock in factory farms, diminishing ocean resources through overfishing, and close contact with urban pets (a complex and sometimes abusive relationship; Pierce, 2016), shift the physical and ethical boundaries with animals. And alongside all this, the major technological changes that both surround us and become part of us are challenging the very idea of what it means to be human. Instrumentation, the growth of data and new forms of monitoring and sensing around our bodies (the new health monitors on first-world wrists, for example) are changing the way we understand and perceive humanity, with an ever increasing monitoring and surveillance of behaviour.

Such instrumentation is also bringing in a world of objects. The *Internet of Things* (IoT), referring to “the networked interconnection of everyday objects, which are often equipped with ubiquitous intelligence” (Xia *et al.*, 2012, p1101), focuses on the new forms of interconnectivity among smart devices, from GPS and heart sensors in watches to biochip transponders in farm animals (see also *The Internet of Beings*: Bell, 2016), drones that can deliver mail in rural areas or support emergency services, or hearing devices that can not only assist those with hearing difficulties but also connect to smart devices in the home (cooking, lighting, heating, entertainment systems, fridges and so forth). These *things* are increasingly connected to

Introduction

each other and linked back to humans, so that it is not only humans who are responsible for data on the internet but also things. The challenge posed by what Berson (2015, p78) calls *instrumentation* – the ways in which human bodies are reconfigured by ever increasing forms of data – may be as great as that of the Anthropocene, for “if climate change strikes us where we live, instrumentation strikes us in our skin, upsetting long enregistered conventions” of how the body is configured through sensory and motor activities.

Posthumanism presents both dystopian and utopian possibilities as we consider that humans might be “displaced as the dominant form of life on the planet by intelligent machines” (Hayles, 1999, p283) or, even more disturbingly, may be about to cause sufficient environmental damage for the extinction of the species (and a whole lot of other species as well) to come sooner than originally thought. The short span of time that humans have dominated the planet will be given over to those more flexible creatures such as cockroaches. “Humans can either go gently into that good night, joining the dinosaurs as a species that once ruled the earth but is now obsolete, or hang on for a while longer by becoming machines themselves” (Hayles, 1999, p283). While both these possibilities – the rise of intelligent machines and the destruction of the ecosystem – indeed form a backdrop to the posthumanism to be discussed here, this book is not intended as a dystopian lament that all is now lost for humans, for there are more optimistic sides to the posthuman, evoking “the exhilarating prospect of getting out of the old boxes and opening up new ways of thinking about what being human means” (Hayles, 1999, p285).

This may lead to a more humble sense of humanity – a more inclusive one, a reconsideration of why all those others were always being left out along lines of class, race, gender, sexual orientation or disability. The volatile idea of what is meant by *human* is “contested and policed with demonic precision” (Bourke, 2011, p5). Such contestation has been of particular importance to those *others* (women, people of colour), who have often not even been accorded the status of the truly human (the epitome of which is *Man*). As Douzinas points out (2000, p109), following the great announcements of human rights, “All assertions of human rights by the groups and classes excluded from citizenship, women, blacks, workers or political and social reformers, were dismissed as selfish attacks against the common good and the democratic will”. Posthumanism, suggests Ferrando (2013, p29), can be seen as post-exclusivist: “an empirical philosophy of mediation which offers a reconciliation of existence in its broadest significations”. It can ask again what our relation is to the planet, to other animals and to the objects around us, and ask how it is we came to swallow ideas such as human agency, human nature or universalism. What *were* we thinking? Posthumanism thus draws on multiple strands of thought and points in multiple directions, from a questioning of the centrality and exceptionalism of humans as actors on this planet, or the relationship to other inhabitants of the earth, to a re-evaluation of the role of objects and space in relation to human thought and action, or the extension of human thinking and capacity through various forms of human enhancement. Posthumanism takes “humanity’s ontological precariousness” seriously (Fuller, 2011, p75).

Introduction

From proclamations about the death of *Man* to investigations into enhanced forms of being, from the advent of the Anthropocene to new forms of materialism and distributed cognition, posthumanism raises significant questions for applied linguistics in terms of our understandings of language, humans, objects and agency. Posthumanism urges us to ask how and why we have come to think about humans in particular ways, with particular boundaries between humans and other animals, humans and artefacts, and humans and nature.

Questioning the ways in which humans have been defined in opposition to animals is in part an inquiry into what it means to be human – the ways in which we define the human and non-human, animals and non-human animals. The division between animals and humans ties to the broader divisions between nature and society/culture, between the natural sciences and the humanities/social sciences, which as Urry (2011a, p7) points out, “mostly operate on the clear separation between nature and society.” Sloterdijk’s (1998) *ontological constitution* incorporating humans, animals, plants, and machines makes a similar intervention into the culture/nature divide: “nature and culture are linked by a broad middle ground of embodied practices – containing languages, rituals and technical skills” (Sloterdijk, 2013, p11). Posthumanism, according to Barad (2007, p136), “eschews both humanist and structuralist accounts of the subject that position the human as either pure cause or pure effect, and the body as the natural and fixed dividing line between interiority and exteriority”. Posthumanist thought thus questions the boundaries between what is seen as inside and outside, where thought occurs and what role a supposedly exterior world may play in thought and language. Posthumanism is best seen not so much as an identifiable philosophy, a fixed body of thought, but rather as an umbrella term, a navigational tool for understanding a present undergoing massive change, a way of responding to the need to rethink what it means to be human following both “onto-epistemological as well as scientific and bio-technological developments of the twentieth and twenty-first centuries” (Ferrando, 2013, p26). Posthumanism “doesn’t presume the separateness of any-‘thing,’ let alone the alleged spatial, ontological, and epistemological distinction that sets humans apart” (Barad, 2007, p136).

Posthumanist applied linguistics

But what, one might ask, has any of this to do with applied linguistics? Neither the broad epistemological questions of posthumanism – asking how we might think differently about the notion of the human – nor the more specific questioning of how humans relate to the non-human – asking why we maintain particular boundaries between people and things – appears to have much to do with applied linguistics. As an applied linguist, one might justifiably ask how any of this relates to language education, language policy, language use in professional contexts, translation, second-language learning or other domains in which applied linguists are active. From an applied linguistic perspective, the only dalliance with humanism (and the only possible need therefore for posthumanism) may appear to be with the era of humanist psychology and pedagogy that emerged alongside other social and

Introduction

political movements of the 1960s and 1970s, questioning forms of authority and arguing for a strongly individualistic and student-centred approach to psychology and education. Reactions to the reductionism of the behaviourist psychology of Skinner (1957) took two different directions, one, such as Chomsky's (1971, 1986), insisting on a return to the inner, cognitive operations of the brain, while the other turned to a more inclusive *whole-person approach*, arguing for the need for self-actualization and positive psychology (this was also a reaction to the perceived negativity of psychoanalysis). Based around Rogers' (1961) client-centred therapy and Maslow's (1970) hierarchy of human needs and motivations, so-called *humanistic* psychology focused on empathy, self-help and the whole person.

This was a rather warm, fuzzy, positive kind of humanism, focusing on the individual, freedom and finding oneself. The effects of humanistic psychology on educational movements were quite extensive in the 1970s and 1980s, critiquing teacher-led education and emphasizing student-centred learning. It was one of the formative influences on communicative language learning, the apotheosis perhaps being Gertrude Moskowitz's popular book *Caring and Sharing in the Foreign Language Class*, with its focus on "self-actualization and self-esteem" (Moskowitz, 1978, p2). Typical activities, illustrating the particular focus on individualist self-interest that was at the core of this orientation, included "Accentuate the positive" (#89), "I enjoyed, I enjoyed" (#114), "What made me me" (#131), "Step right up and see me" (#136), "What I want from life" (#151), "The best product – me" (#160), "I hear happiness" (#180), "Read all about me" (#214), "From me to me" (#215) and so on. More generally, "humanistic techniques" were seen to "encourage learners to express what they themselves want to say", to reduce the role of the teacher in the classroom and to "enable the students to proceed autonomously" (Cormon, 1986, p281).

As similar activities became part of the global English language teaching (ELT) enterprise, however, critics elsewhere started to object, not only because they seemed trivial and non-serious in contexts where learning and education were seen as serious enterprises, but also because this labelling of Western language teaching as "humanistic" seemed to imply "the 'inhumanity' of things non-Western" (Ting, 1987, p59). The use of such techniques in Western ELT, Ting (1987, p59) went on to suggest, may fail to work because "self-interest is chosen as the starting point. People assume that only the pursuit of self-interest is humanistic, and to many of them the assumption has become a mind-set". Claims to what is human are often very particular claims. Here, an individualistic focus on the self and self-interest, marketed as *humanistic*, clashed with alternative ways of thinking about humans and their responsibilities to others. For many applied linguists, this is doubtless very much a bygone era – things have moved on – and the idea of a humanistic approach to language education is rarely invoked (though see, for example, Murphey, 2012). Nonetheless, it is worth noting the continued effects of this thinking in anything from student-centred ideologies and learner autonomy to *peace linguistics*.¹

To suggest that these *caring and sharing* classroom activities somehow encapsulate humanist orientations in applied linguistics, however, would be to

Introduction

underestimate the much deeper connections between humanism and ways of thinking about language. Many applied linguists may see themselves as committed to humanism and the humanities in a much broader sense: applied linguistics as a discipline that sits alongside history, philosophy and literature, or applied linguistics as a field of inquiry that helps us understand the central role of language in human relations. Rather than a particular focus on language teaching and the individual from the 1970s, humanist assumptions underpin a great deal of thinking in applied linguistics. Both the humanistic reaction to behaviourism – emphasizing the whole person – and the cognitivist reaction – emphasizing universal human commonalities – are undergirded by different strands of humanist thought. Cognitivist rationalism may not sit comfortably with whole-person psychology, but both stem from related assumptions about humanity, communication and mutual understanding. Central here is the “linguistic myth of human history” – with its claims to universality – that the essence of what it means to be human is claimed to be language; and that human history is an account of the development from oral to written language (Finnegan, 2015, p18). Applied linguistics has taken on board, and indeed been a major promoter of, humanist accounts of language, literacy and learning. To the extent that applied linguistics has for a long time supported a view of humans as self-governing individuals and languages as separable objects it has been an important player in the promotion of a humanist vision.

So there are several reasons for taking up posthumanist thought in relation to applied linguistics. Across different areas of the humanities and the social sciences there has been serious discussion of posthumanism for many years. Geographers, historians, anthropologists, literary scholars, philosophers and many others have opened up discussions of posthumanism. This obviously does not imply that applied linguistics – all too often a rather rudderless domain of work that reacts to whatever new trend turns up on the radar – should swing with the new tide and take up posthumanism simply because it’s there. But it does suggest that we would do well to engage with this line of thinking lest we find ourselves once again stuck within a discipline unable to engage with a more-than-human world while claiming to do otherwise. Many of the themes discussed in this book – new materialism, speculative realism, distributed cognition – are common points of discussion in other areas of the humanities and social sciences, and we should at least be able to join that discussion. Posthumanism, furthermore, is far more than a rather abstract engagement with what it means to be human: many of the topics that will be taken up here are very real and urgent, from climate change and the planet to humans, communication and technology.

Posthumanism may also be understood as an umbrella term for work that is already going on in applied linguistics. There is currently a climate of thought seeking an increased emphasis on space, place, things and their interrelationships. From studies of place and semiotics, linguistic landscapes, geosemiotics, nexus analysis and language ecology to sociocultural theory, sociomaterial approaches to literacy and poststructuralist accounts of repertoire, there has been an expressed desire to expand the semiotic terrain (beyond language more narrowly construed) in relation to material surrounds and space. From the prescient work of Scollon

Introduction

and Scollon (2004) on nexus analysis as a “semiotic ecosystem” (p89) where “historical trajectories of people, places, discourse, ideas, and objects come together” (p159) to recent work on social semiotics suggesting that “things make people happen” and that “objects, in and of themselves, have consequences” (Kell, 2015, p442), there are many related approaches that may arguably be considered as posthumanist whether they make this connection themselves or not. The broad scope of posthumanism allows this discussion to draw on multiple related areas without being reduced to them: thus we can look at nexus analysis, sociocultural theory, ecological approaches to language, Actor Network Theory, distributed cognition and more, without needing to follow one line or the other. A posthumanist stance makes it possible to push these lines of thinking beyond a reluctance to forego the humanist subject as guarantor of meaning or to take on board the possibility that objects may interpellate subjects.

Taking on posthumanist thought can also make new connections and lines of thinking possible. Some areas of applied linguistics had become off-limits to those steeped in critical and social theory: cognition was something of a dirty word, since it was so linked to notions of the individual and thought-internal processes that there seemed no possibility of redeeming the idea for a more socially and critically oriented approach to thought. That this internalized approach to cognition became the dominant mode of exploring second-language development has greatly hindered the applied linguistic understanding of language learning. To be sure, more social and ecological approaches to language development (Lantolf and Thorne, 2006; Kramsch, 2008; Van Lier, 2000) opened up alternative ways of thinking about cognition, but it is when we look at issues of extended and distributed cognition (Clark, 2008; Hutchins, 1995) – when we consider that the only serious way to study cognition is ethnographically – that a consideration of the social, spatial and embodied dimensions of language learning opens up an understanding of second-language development as a distributed process.

Reality was also a bit of a no-go area, particularly to those who adhered to various poststructuralist or social-constructionist positions that always placed ‘reality’ thus, in scare quotes. For a number of reasons, however, it has now re-emerged as a question we need to re-engage with more seriously, not least because a denial of reality leaves us in an awkward position in relation to other deniers of reality (climate-change sceptics, for example). As Latour (2004a) notes, always putting questions of the real on hold may have been a tactical error. Materialism meanwhile has long been tied to a rather heavy-footed Marxist theorization and its insistence on the centrality of material infrastructure. Posthumanist materialism, by contrast, follows a line of thought running from Spinoza to Deleuze rather than Hegel to Marx, suggesting an alternative politics centred less on material infrastructure, political economy and the demystification projects of ideology critique (which reduce *political* agency to *human* agency) and instead on a politics that reorients humans towards their ethical interdependence with the material world (Bennett, 2010a). Posthumanist thought brings a different set of ethical and political concerns to the applied linguistic table, issues to do with human relations to the planet and its other inhabitants.

Introduction

Posthumanist challenges

The notion of posthumanism, or more particularly posthumanist applied linguistics, may evoke a range of quite reasonable objections, from a concern that we shouldn't discard humanism quite yet (isn't it humanism that helped us get away from religious dogma? Isn't humanism the best thing that ever happened to humans?) to a distress that this is yet another of those rather pointless post-positions that do little other than argue with the past (isn't posthumanism just the latest version of post-modernism?). Other concerns suggest that the focus on other inhabitants of the planet is really just about animal rights (just because I'm against whaling doesn't make me against humans, too), or that the interest in enhanced humanity is little more than science fiction (this talk of biological implants and distributed networks sounds more like a *Terminator* film than an issue for linguistics), or that consideration of objects as actants is both strange ontologically and risky politically (does it really make sense to give equal weight to people and objects – a rock and a hard place, maybe, but a rock and a human?). And, finally, what's all this got to do with applied linguistics (we're concerned with everyday language practices, and speculations about what it means to be human aren't going to help us understand second-language learning)? While also wary of these challenges, I shall discuss briefly below how these legitimate concerns may be overcome.

A starting point is to clarify the relation between posthumanism and humanism. Posthumanism may embrace a range of positions, including transhumanism (generally the idea that we may be transcending the human through new technologies) and anti-humanism (an avowed rejection of the tenets of humanism). Posthumanism therefore may be understood as both a broad stance on what it means to be human (posthuman-ism) as well as a more specific critique of the philosophy of humanism (post-humanism). Posthumanism is not therefore giving up on humans – announcing the end of humanity – but rather calling for a rethinking of the relationship between humans and the rest. In a line of thinking from Darwin to Marx and Freud that has decentred the position of humans as separate from other animals, in control of their history, and in charge of their own minds, posthumanism continues this work of repositioning humans where they belong. The challenge is to disidentify from anthropocentric norms and the unearned privileges that have come with humanist assumptions. Posthumanism is not therefore so much anti-human as it is opposed to *human hubris*.

Isn't this, one might ask, just another of those *post* theories that we thought we'd finally got over? Well, yes and no. Posthumanism very obviously draws on that lineage of thought that took up the questions raised by Marx and Freud, among others, about the autonomy and control of the human subject: humans are far more constrained than the free-willed individual invented in eighteenth-century Europe. From Lacan to Althusser, Foucault to Derrida, various projects that have since been labelled postmodern or poststructuralist have continued this quest to rethink the human subject (Angermüller, 2014). So in many ways the posthumanist project is indeed part of that lineage of thinking. Yet there are also good reasons to question an argument that it is *just* or *another* in a line of *post* arguments. Posthumanism does sit

Introduction

in that critical line of thinking that has questioned the human subject, but by exploring alternative ways of thinking about what is important in the world – from climate change to the relations between humans and things – it reinvigorates our understanding of what matters, not by rejecting older approaches (socioeconomic inequality is still deeply important) but rather by presenting alternative ways of thinking about materialism (Bennett, 2010a).

An appreciation of poststructuralist thought has not been helped either by the uneasy relationship between applied linguistics and social theory or by the tendency to caricature poststructuralist, postmodern or postcolonial thought as if they were concerned with the individual, agency, relativism and diversity (which they're not). While recent calls to re-engage with political economy in applied linguistics (Block, 2014) or to focus on forms of economic and racial discrimination (Kubota, 2016) point to concerns that undeniably should be a central focus of applied linguistics, the tendency to represent *post* theories as forms of humanist ideology (focusing on individual agency and difference) and then to equate this with neoliberalism (I return to this discussion in Chapter 2) is to overlook the point that it is not poststructuralist or postcolonial theory that is the problem so much as their appropriation by the bourgeois academy and its humanist principles. As McNamara (2015) points out, applied linguistics has not yet fully engaged with poststructuralist thinking and the ground-breaking challenges it poses to how we understand language and humans.

A different concern suggests that the focus on an alternative relation to the other inhabitants of the planet is really just animal rights dressed up as posthumanism. I should admit a certain weariness when some authors in the field go on about their pets (or when the acknowledgements include 'poor old Tootsie, who missed her afternoon walks'). I am not a dog- or cat-oriented person, though I do have very serious concerns about the welfare of other creatures on the planet, and I am appalled (particularly as a scuba diver) by the damage that has been done to great natural wonders such as the Great Barrier Reef in Australia. Every year I volunteer my services to the Saving Philippines Reefs (SPR) project, which needs experienced scuba divers to help monitor the health of Philippine reefs and the marine ecosystems they are part of (White et al., 2016; and see front cover picture). So while I do not keep pets or actively campaign for animal rights, which Braidotti (2013, p76) categorizes as a *post-anthropocentric neohumanist* stance on the grounds that the focus is on according to animals the same rights that humans enjoy, rather than questioning what it is to be human in the first place, I do consider very seriously the relation between humans and the ecosystems we are ruining.

I am more interested in sharks than dogs (Appleby and Pennycook, 2017), not as creatures to construct alarmist discourses about (Australia is a context where shark discourses abound) but in line with ecofeminist arguments that a renewed politics needs to engage differently with all that is not human. This is also about the significance of embodied practice in relation to sociolinguistics (Bucholtz and Hall, 2016): just as *walking* may be understood as "an important practice in the performative coproduction of knowledge and space" (Sundberg, 2014, p39), so swimming with sharks may be a significant practice in coming to know the world

Introduction

differently. The importance of work such as Cook's (2015) on the discourses that construct our relation with other animals is to understand that humans are in part defined by "a connection with animals" going back over millions of years (Shipman, 2011, p13). A central question for all (applied) linguists is how we understand the language question in all this: do we draw a deep divide between humans and non-humans (language is what defines us as humans) or do we open the door to consider that the relations between human and non-human communication need to be carefully considered?

The focus on cyborgs and human enhancement – sometimes termed the *trans-human* element of posthumanism – can also evoke images of a science-fiction fantasy world far removed from the material realities I want to bring to the table. I will not deal with these themes (robotics, extropianist views of human development and so on) in great detail in this book, though I will inevitably return at various points to questions about *converging technologies* that transcend, enhance and prolong life through a range of enhancements to mind and body, the ways in which "humans are improving their capacity to manipulate and transform the material character of their being" (Fuller, 2011, p109). *Enhanced reality* or the hard questions concerning bionic ears for the Deaf community will be discussed in Chapter 4, for example. Body modifications – prosthetic limbs, bionic ears, camera eyes, or simply RFID implants that encode personal details – can be seen as body enhancements rather than just replacements, and this raises questions about what it now means to be human (not so much biological givens as improvable bodies).

While the domains of converging technologies and human enhancements will not be a major focus of this book, it is also important to understand the question of *cyborgs* (*cybernetic organisms* with restored or enhanced abilities through the integration of organic and biomechatronic body parts) in political terms, going back to Haraway's focus (1991, p149) on a new politics "faithful to feminism, socialism and materialism" in her classic *Cyborg Manifesto*. This could be made possible, she argued, by three boundary breakdowns: between human and animal, animal-human and machine, and physical and non-physical. The cyborg metaphor suggests the possibility of transcending traditional approaches to gender, feminism, politics and identity. This line of thinking re-emerges in a different form in more recent ecofeminist work that argues that women's struggles need to focus not so much on equality with their supposed male Other but rather on a reworking of boundaries between women and all those others deemed less than human in the humanist project (Adams and Gruen, 2014).

The focus on objects as actants, which has emerged particularly in Actor Network Theory (ANT) (Latour, 2005), also provides ground for concern lest it appear that the human dissolves altogether in a sea of other objects. As Thrift (2007, p111) notes, while ANT provides many important insights – the agency of objects, the notion of distributed and provisional personhood and the rejection of the idea of "a centred human subject establishing an exact dominion over all" – it is also limited in its focus on networks rather than events (and an inability to deal, therefore, with the unexpected) and on a "flattened cohabitation of all things" at the expense of "specifically human capacities of expression, powers of invention, of fabulation".

Introduction

Appadurai (2015, p233) is likewise concerned that while the notion of *actants* usefully erodes the centrality of human agency, it may be more useful instead to think in terms of *mediants* to avoid the potential social and political paralysis of analyses where agency is everywhere. It is worth recalling that a posthumanist position does not aim to efface humanity but to rethink the relation between humans and that deemed non-human. While there are good reasons to reconsider the role of things in our lives, and even perhaps to consider what it's like to be a thing (Bogost, 2012), there is also a need here to find a way forward that does not suggest a complete equality among all things and people.

As we shall see in Chapter 8, some arguments even suggest that such thinking opens up the long-term imperative to 'give voice' to the marginalized and dispossessed by looking at marginalization in broader terms: not just those people who along lines of race, gender, class and sexuality have not been heard in public debate but also objects and forms of agency that have not been acknowledged by the humanist focus on people (Brigstocke and Noorani, 2016). But why, we might ask, give voice to voiceless objects when so many voiceless humans are still waiting to be heard? The argument, however, is not that we should listen to a cat, a flagpole, an alarm clock or a coffee table before we pay attention to people who need to be heard. It is not that we should not listen, as the late great Leonard Cohen put it, to the words of "a beggar leaning on his wooden crutch" who said "You must not ask for so much" or to the words of "a pretty woman leaning in her darkened door" who cried "Hey, why not ask for more?" ('Bird on a Wire'). It is to appreciate, however, that the crutch and the wooden door are not just props to contextualize these speakers but are part of the action too. So the question becomes what new relations emerge in research and political activism when voices have to be understood as not only emerging from a human capacity to speak but also from assemblages of people, objects and places, when new modes of listening urge us to be more attentive to the more-than-human world?

And what's all this got to do with applied linguistics? From an applied linguistic point of view, as I suggested above, humanism generally only turns up in specific terms in relation to things such as humanist psychology (about the *whole person*) and humanist pedagogy (person-oriented activities in the classroom). Such ideas are really only humanist in a rather 1970s Euro-American flower-power way of thinking about people and education, and it is not my intention here to suggest these as exemplars of humanism, which is a much more complex set of philosophies. More generally, humanism in applied linguistics needs to be seen as a broader philosophical background to the ways we think about language, people and communication that focuses on humans as creative thinkers and independent actors. Humanism privileges human minds as the source of knowledge and ethics, as masters of their own intentions, as uniquely capable of asserting agency and as separate and distinct from all other creatures (Schatzki, 2002). It is these assumptions that posthumanism starts to question, and it is these assumptions that sit at the heart of much of applied linguistics, when we talk of linguistic or communicative competence, when we suggest that people choose what items to use from a pregiven linguistic system and when we assert that humans use language in particular contexts rather than seeing these as profoundly integrated.

Introduction

The arguments about distributed language and cognition (Chapter 3) are not suggesting that a pencil can think, a sofa has agency or a coffee mug can talk, but rather that the roles they may play in a larger domain of interconnected cognition and activity render them more than just passive actors. In a mock discussion between two examiners trying to ensure that they are able to assess an individual in complete cognitive isolation (they have already ensured that there are no other people, books or potential sources of knowledge present) one rejects the suggestion that the candidate might be allowed pencil and paper:

“No no no no. The pencil is a tool that brings with it all kinds of thoughts. When you write you change your thoughts and your mind and you learn all kinds of things. We want to find out what she knows all by herself now. Writing will make her change. So no paper. No pencil.”

(Murphey, 2012, p75)

While this can be read as a reiteration of the old truism that writing is not so much the reporting of thoughts but the creation of ideas, it may also be read as suggesting that this pencil and this sheet of paper become actors in a network of relations, and that the pencil does indeed have very real effects on our thinking. Indeed these two examiners go on to reject not only their own presence but also furniture: “No table . . . no chair” (Murphey, 2012, p75). It is not just the role a pencil may play in aiding thinking but the relations between humans and objects that are at stake here. And as we shall see further in Chapter 7, tables are something we have to take very seriously indeed. From this perspective, “the human is not approached as an autonomous agent, but is located within an extensive system of relations” (Ferrando, 2013, p32).

A useful posthumanism does not deny the existence of humans (this would not be a very credible way forward) but rather argues against particular ways in which humans have been understood. As Bucholtz and Hall (2016, p186) note, “the decentering of human signification as the site of agency does not make posthumanism any less a theory about humanity”. The point is not to discount humans in the search for a more object-oriented ontology but to reconfigure where humans sit, to unsettle the position of humans as the monarchs of being and to see humans as *entangled* in beings and *implicated* in other beings (Bogost, 2012). Neither is this about dismissing humanism and all that it has achieved, nor an argument for or against religion. To question the premises of humanism is not to deny its role in taking human thought forward, nor to return to some sort of religiosity. It is not an argument for species equivalence (humans and animals are all equal) but rather suggests that the absolute divide between them is neither helpful nor sustainable. Nor is it an argument that machines and technology are our inevitable future and that humans are dissolving into cyborgs, in some dystopian image of the world run by half humans/half robots. Rather this is a posthumanism that questions human hubris, questions human minds as central to knowledge, ethics, action and intention and questions the distinctions between humans and other creatures and objects.

From humanism to posthumanism: navigating this book

Several major themes above clearly need unpacking. Chapter 2 explores the broad background to posthumanism, tracing posthumanist thinking in relation to modernism, humanism, religion and materialism, extending the discussion of humanism and posthumanism with a particular focus on religion and human rights. Humanism has played a significant role in pushing back the tides of religious dogma and superstition, as well as grounding movements that claim a universality to the human experience. If we intend to question the notion of humanism, we need to do so with caution lest we reopen the door to dogma and despotism. An analysis of humanism, however, also shows the particularity of its framing of what it means to be human, an image based largely on straight, white, educated European male elites (SWEEMEs) as a universal norm, emphasizing the individual and their mastery over their own minds as the source of knowledge, agency and ethics, and the separation of humans from all other beings and things. A discussion of human rights has important implications for the applied linguistic focus on language rights, and the problematic prescriptions of global language definition and intervention that flow from this idea (Pupavac, 2012). This chapter further considers the relation between poststructuralism and posthumanism, pointing to the continued failure in applied linguistics to engage seriously with critical theory. One of the bridges here between poststructuralist accounts of performativity and historical materialist approaches to inequality can be found in the *new materialism*, particularly in the works of Barad (2007) and Bennett (2010a) that provide compelling alternatives for thinking about the material world.

These new approaches to materialism have significant implications for how we think about language and cognition. Applied linguistics has long been held back by the cognitivist traditions of linguistics and psychology, which have, rather strangely, located thought in an isolated organ in the human head. Chapter 3 develops recent work on distributed cognition. While extended cognition points to the ways we outsource our thinking, as it were, to other systems, such as mobile phones, distributed cognition focuses on the ways in which our thinking involves the environment about us. Questioning the distinction between internal (the brain) and external (our surrounds) domains, this line of thought poses serious questions for the notion of where the human starts and ends. Extending this work into the domain of language, this chapter argues (through examples from various studies) that language can equally be seen as distributed in space. This takes us beyond a discussion of language in the brain, in society or in context and urges us to think about language in alternative spatial and material terms.

One point that emerges very clearly when we look at the history of Western approaches to language and thought is how implicated they have been in a particular history of sensorial hierarchies, where thought and language are tied to seeing and hearing (the higher senses), while the lower senses (touch, taste, smell) are relegated to non-language (and the kitchen, the workhouse, the slums and all those places where embodied Others dwell). One initial question here is how on earth seeing and hearing became disembodied. We have to see this in terms of a particular

Introduction

gendered and racialized history, where certain people (white men) had the luxury to consider language, thought and literacy in terms of cognitively isolated activity. Re-examining the role of the senses in relation to semiotics, Chapter 4 takes up the posthuman challenge to reverse the gendered and racialized hierarchies that have placed language in one domain and the senses in others. Important themes in this chapter will also be sign languages and Deaf communities and the implications for people who are discounted as fully human on the basis of their language not conforming to a particular image of humanity.

Much of the work that has been done to construct humans as separate and unique has rested on the claim that language is that which separates us from animals. Long lists of features unique to human language have been used to reinforce this distinction. At least since Aristotle, as Tomasello (2014) notes, humans have speculated on their relation to animals, a project limited for many centuries by the lack of non-human primates as a point of comparison in Europe, making it easier to posit reason or free will as distinguishing markers. Recent work has started to break down this “sharp divide between human language and non-human communicative systems” (Evans, 2014, p258). Looking particularly at the discussions of pointing – do only humans point? – Chapter 5 discusses the implications for rethinking language and communication from a perspective that includes the more bodily aspects of animal communication. This has implications both for our relationship to animals but also for our understanding of communication. Of course, we need to be cautious here and not start to suggest that parrots can talk on as wide a range of topics as humans or that dolphins could learn to read if given the chance. But it is worth asking why we have worked so assiduously and with such circularity of argument (human language is that which is unique to humans and only humans use human language) to construct human language as unique, and how we might rethink this relation.

The Western tradition of thought about language and communication has often assumed that humans routinely understand each other. A humanist account of communication suggests brains in cognitive isolation encoding and decoding ideas in and out of language and passing messages back and forth between themselves. Chapter 6 draws on posthumanist thinking to ask how communication might be rethought when on the one hand we look at actual communication as it unfurls between people, and on the other when we consider distributed language and the role of bodies, senses and objects in communication. Mutual misunderstanding may be an equally good way of conceiving how communication works. This does not mean we should abandon communication but it does have implications for socio- and applied approaches to language. Breaking down distinctions between interiority and exteriority allows us to understand subjects, language and cognition not as properties of individual humans but rather as distributed across people, places and artefacts. A posthumanist applied linguistics does not assume rational human subjects engaged in mutually comprehensible dialogue; the multimodal and multisensory semiotic practices of the everyday include the dynamic relations between semiotic resources, activities, artefacts and space. No longer, from this point of view, do we need to think in terms of competence as an individual capacity, of identity as

Introduction

personal, of languages as entities we acquire or of intercultural communication as uniquely human. Posthumanist thought urges us not just to broaden an understanding of communication but to relocate where social semiotics occurs.

The new materialism raises questions for how we think about discourse and reality, or the relation between constructionism and realism. The arguments on this topic have often tended towards mutual caricature (for constructionists there is no reality, and for realists there is no mediating role of language). Chapter 7, drawing on the work of Karen Barad (2007) Bruno Latour (2013) and others, returns to these arguments from a new materialist perspective and argues for alternative ways of thinking about these concerns. Taking up an extended debate between an avowed constructionist (Teubert, 2013), a realist (Sealey, 2014) and an integrationist (Pablé, 2015) about how we might perceive a cat at the bottom of the garden, this chapter seeks a way forward through the development of the idea of *critical post-humanist realism*, which seeks to re-engage with reality by emphasizing the critical in critical social theory, a realism that acknowledges the social role of knowledge and a posthumanism that incorporates a political understanding of human inter-relationships with the material world. This discussion of reality matters not only because we need better ways of thinking about whether languages are real, and alternative approaches to the relations between people and things, but also because in the wake of Donald Trump's election as president of the USA new debates have emerged about what it means to live in a *post-truth* era. How do we, who have often placed 'truth' and 'reality' in our beloved scare quotes, come to grips with this new monster?

The final chapter pulls these themes together and focuses more closely on educational, socio- and applied linguistic concerns: if we question human exceptionalism, how might we start to understand language and communication differently? What are the linguistic and educational implications of a revised understanding of humans, animals and the planet? What would a critical posthumanist approach to language education look like? This book aims to develop a form of *critical post-humanist applied linguistics*. *Critical posthumanism* can be understood as a "*critical-philosophical project* that unravels the discursive, institutional and material structures and processes that have presented the human as unique and bounded even when situated among all other life forms" (Nayar, 2014, p29). For Braidotti (2016), critical posthumanist thought is a "caring disidentification from human supremacy" (p22). Based on "philosophies of radical immanence, vital materialism and the feminist politics of locations" this is not a universalist construction of an abstract pan-humanity faced by global crises so much as "embedded and embodied, relational and affective cartographies of the new power relations that are emerging from the current geopolitical and post-anthropocentric world order" (pp 23–4). A critical posthumanist applied linguistics therefore seeks to unravel the ways in which language has been bound up with human exceptionalism and seeks an alternative way forward through a new understanding of language, power and possibility.

The case I make in this book is neither that all this is new (discussions of ecology, nexus analysis, the poststructuralist subject and language as a local practice have

Introduction

raised related questions) nor that posthumanist thought offers the only way forward from the stasis that seems to have befallen applied linguistics over the last decade. Rather, a host of recent developments across applied linguistics and the social sciences can be better understood by looking through a posthumanist lens that gives us some exciting new directions for a renewed applied linguistics. By taking up ideas drawn from the recent thinking on the *Commons* or spatial activism, by rethinking relations between humans, language, objects and space, and by considering more carefully what distributed agency, language and cognition may mean, a critical posthumanist applied linguistics offers important ways forward for a renewed engagement with language beyond human hubris.

Note

- 1 The peace linguistics poetry circulated by Francisco Gomes de Matos is a good example of a *humanistic* approach to language and global peace. Few would dispute the importance of connecting linguistics to global peace, but this articulation of these relations recalls a particular humanist orientation. My thanks to Francisco for granting permission to use his poetry here.

On Global Peace: A poetic reflection

by Francisco Gomes de Matos a peace linguist Recife, Brazil (08/02/2016)

Global Peace may be hard to define,
but it may be easy to refine.
For Love of Humankind it subsumes,
and harmonious co-existence it assumes.

Global Peace may be hard to achieve,
but it may be easy to believe.
For human dignity it subsumes,
and a deep spirituality it assumes.

Global Peace may be hard to appropriate,
but it may be easy to communicate.
For a caring, compassionate interaction it subsumes,
and a nonviolent/nonkilling governance it assumes.

Introduction

The *Routledge Handbook of English as a Lingua Franca*, or ELF, as it is more often called, begins where it ends: by looking back to ELF's earliest days. The very final chapter of the handbook, 'The future of English as a lingua franca?', starts by outlining ELF's development from its beginnings – including the first time the acronym 'ELF' was actually used in public – to the present day, before gazing into ELF's hypothetical future. Nobody, myself included, had any idea in those early days that ELF research, let alone the acronym that was then so often met with amusement and comments about 'little green men', would grow so rapidly into the vast, widely known and largely accepted research field that it is nowadays and is likely to remain into the foreseeable future.

On its journey, ELF has attracted established scholars from a range of other fields, initially and most notably Barbara Seidlhofer and Anna Mauranen, two of the three 'founding mothers of ELF' (Jenkins being the third), and compilers of the first two ELF corpora (see Mauranen 2003; Seidlhofer 2001), as well as a plethora of newer ELF scholars, many of whom focused on ELF in their doctoral research and subsequently became established ELF researchers themselves – not least my two co-editors of this handbook, Martin Dewey and Will Baker. Meanwhile, scholars in a range of other language-related disciplines, including several contributors to this handbook, have incorporated ELF into their thinking and research into areas such as language assessment (see Harding and McNamara, Chapter 45 this volume), complexity theory (see Larsen-Freeman, Chapter 4 this volume), and literacy practices (see Wingate, Chapter 34 this volume), to name just three.

This is not to suggest that ELF, the phenomenon, did not exist a long time prior to the start of the research that has explored it. As is well-documented (e.g. Jenkins, Cogo and Dewey 2011), English has served as a lingua franca at many times and in many places in its long history, stretching right back to the start of British colonialism in the sixteenth century. Nor is English by any means the only, or even the first, language to serve as a lingua franca, or in other words, a language used for communication among those who do not share a first language (see Morán Panero, Chapter 44 this volume). Various languages have served this purpose over the centuries, including Arabic, French, Greek, Persian, Portuguese, Spanish and Turkish, and several continue to do so. What *is* different about ELF is the extent of its

Introduction

current reach both geographically and in respect of the domains in which it is used, to which the chapters of this ELF handbook are testimony.

It is also not to suggest that ELF research has been uncritically accepted and gone unchallenged. Any kind of change tends to attract anxieties, and change relating to language often more so than any other. And ELF, because it promotes such radical change in the way we think about English as well as language more broadly, has received perhaps more than its fair share of criticism. In its earlier days, ELF research was most criticised from two more or less opposing positions: World Englishes and ELT. Somewhat confusingly, while World Englishes scholars tended to argue that ELF researchers were promoting a monolithic kind of English, ELT professionals took the opposite view, that ELF was promoting the idea that ‘anything goes’, with no standards whatsoever (see Seidlhofer, Chapter 7 this volume). Both positions were of course wrong, and it is pleasing to note that many of those who promoted them have, to a great extent, reconciled themselves to ELF thinking over the intervening years.

Inevitably, there will always be some who, because ELF does not fit neatly into their own sometimes narrow view of linguistic life, are not able to make the conceptual leap and acknowledge the validity of the ELF paradigm. And there will always be others who simply do not take the trouble to read the ELF literature properly, if at all, before pronouncing on it. To paraphrase the words of the politician, Senator Patrick Moynihan, some of these commentators seem to believe that they are entitled not only to their own opinions, but also to their own facts. Nevertheless, while myths such as ‘ELF excludes native English speakers’ still circulate from time to time, they seem at last to be in decline. Meanwhile, others who have had entirely legitimate concerns about ELF, particularly in its early days when there was talk of ELF ‘varieties’ and ‘codification’, have made substantial contributions to the development of ELF researchers’ thinking. Such scholars have played an important role in reinforcing what was being found in empirical ELF data and contributing to moving ELF research on, for example, to the recognition of variability as a key feature of ELF interactions (see Kimura and Canagarajah, Chapter 24 this volume), and more recently of multilingualism as ELF’s overarching framework rather than one of its characteristics, with translanguaging seen as an intrinsic part of ELF communication. The work of Garcia and Li Wei on translanguaging (e.g. 2014), and research into the multilingual turn, such as the contributions to May (2014), have been particularly influential in these latter respects.

Turning now to the 47 chapters of this first ELF handbook, these are divided into seven sections. Part I, ‘Conceptualising and positioning ELF’, consists of eight chapters in five of which leading ELF researchers and commentators, Mauranen (Chapter 1), Baker (Chapter 2), Ehrenreich (Chapter 3), Seidlhofer (Chapter 7), and Widdowson (Chapter 8), consider ELF from a range of perspectives. Meanwhile scholars from different areas of language and linguistics, Larsen-Freeman (Chapter 4), Leung and Lewkowicz (Chapter 5), and Hall (Chapter 6), explore ELF in relation to their own specialisms. The second section of the handbook turns to the regional spread of ELF. By this, the authors do not mean that ELF communication is defined by its geographical position: it is always the case that who is speaking with whom is what counts most in ELF rather than where in the world the speakers happen to be situated. However, in line with Mauranen’s notion of similects (see Chapter 1), it is also evident that speakers of different first (and other) languages are influenced, albeit to a greater or lesser extent, by their language backgrounds. The seven chapters of Part II thus consider how, and how far, ELF is used in the regions on which their chapters focus, along with how it is regarded within their education systems. These chapters range widely, covering Europe (Sherman, Chapter 9), the Gulf States (Alharbi, Chapter 10), the Association of South-East Asian Nations (Kirkpatrick, Chapter 11), China

(Wang, Chapter 12), Japan (D'Angelo, Chapter 13), Brazil (Gimenez, El Kadri and Calvo, Chapter 14), and South Africa (Van der Walt and Evans, Chapter 15).

Part III is concerned with ELF characteristics and processes. It begins with Osimk-Teasdale's chapter on ELF's variability, moves on to explore the role of pronunciation in miscommunication (Gardiner and Deterding, Chapter 18), then turns to the issue of creativity in ELF (Pitzl, Chapter 19), grammar (Ranta, Chapter 20), and morphosyntactic variation (Björkman, Chapter 21). The final two chapters of Part III consider the question of ELF norms (Hynninen and Solin, Chapter 22) and the rarely discussed issue of uncooperative ELF encounters (Jenks, Chapter 23).

We then turn to ELF's domains and functions. Part IV begins with Chapter 24 by Kimura and Canagarajah in which they examine similarities and differences in approaches taken by scholars researching translanguaging practices and ELF across a range of domains. Kankaanranta and Louhiala-Salminen (Chapter 25) turn to ELF in the domain of business, or BELF as it has become widely known, and Pietikäinen (Chapter 26) explores ELF in social contexts, focusing specifically on close relationships. The final four chapters of this section relate to humour in ELF (Pullin, Chapter 27), ELF in electronically mediated communication (Sangiamchit, Chapter 28), ELF and multilingualism (Cogo, Chapter 29), and ELF in translation and interpreting (Albl-Mikasa, Chapter 30). Part V is then devoted to one specific domain: ELF in university settings. This section consists of four chapters. First, Smit (Chapter 31) considers academic ELF from the perspective of language policy. Next, in Chapter 32, Murata and Iino consider English medium instruction with a particular focus on Japan. In Chapter 33, Horner tackles the still under-researched area of written academic ELF, and in the final chapter of the section, Wingate (Chapter 34) considers ELF in relation to literacy in higher education.

Part VI, which will be of particular interest to readers involved in ELT, then turns our attention to language pedagogy, starting with ELF in, respectively, teacher education (Dewey and Patsko, Chapter 35), and teacher development (Sifakis and Bayyurt, Chapter 36), while Galloway explores ELF in teaching materials (Chapter 37). Hüttner then focuses on the role of ELF in content and language integrated learning, or CLIL (Chapter 38), and is followed by Chapter 39 by Suzuki, Liu and Yu, which looks at ELT and ELF specifically in three Asian contexts, Japan, China and Taiwan. Part VI ends with two wider-ranging chapters. In the penultimate chapter of the section, Wright and Zheng (Chapter 40) consider the difficulty of introducing ELF into the classroom, while Llorca (Chapter 41) ends Part VI by exploring ELF from the teacher's perspective.

The handbook concludes with six chapters that consider a number of trends and debates, and look into the future of ELF. In Chapter 42, Baird and Baird take a critical look at ELF attitude research and propose new ways of framing ELF attitudes. This is followed by Chapter 43, in which Guido discusses a particularly topical issue: migration, and the role of ELF in (mis)communication in immigrant ELF encounters. The focus is turned by Morán Panero in Chapter 44 to ELF among other global languages/lingua francas. We then move on to two chapters that explore in different ways the controversial issue of ELF in respect of language assessment. First, in Chapter 45, Harding and McNamara consider the challenges presented by ELF and suggest possible ways forward, and second, in Chapter 46 Shohamy discusses ELF in respect of critical language testing. Finally, the handbook ends with my own chapter (Chapter 47), in which I take stock of the distance ELF research has travelled since its beginnings, and evaluate a number of predictions about the future of ELF.

With such a rich and wide-ranging collection of chapters written by so many key scholars in ELF and from other related areas, it remains only for me to wish you, on behalf of all

Introduction

three handbook editors, an enlightening and engrossing read, whether you choose to study the handbook's contents in detail from beginning to end, or simply to dip into those chapters that align most closely with your own interests.

Jennifer Jenkins
January 2017

References

- García O. and L. Wei (2014). *Translanguaging: Language, Bilingualism and Education*. Basingstoke: Palgrave Macmillan.
- Jenkins, J., A. Cogo and M. Dewey (2011). Review of developments in research into English as a lingua franca. *Language Teaching* 44 (3), pp. 281–315.
- Mauranen, A. (2003). The corpus of English as a lingua franca in academic settings. *TESOL Quarterly* 37 (3), pp. 513–527.
- May S. ed. (2014). *The Multilingual Turn: Implications for SLA, TESOL and Bilingual Education*. New York and Abingdon: Routledge.
- Seidlhofer, B. (2001). Closing a conceptual gap: The case of a description of English as a lingua franca. *International Journal of Applied Linguistics* 11 (2), pp. 133–158.

7

INPUT PROCESSING IN
ADULT SLA*Bill VanPatten*

Imagine the speaker of Spanish learning English. In a conversation or discussion, she hears someone say, “The police officer was killed by the robber.” Although for the native speaker it is clear that it was the police officer who died, the learner of English may interpret this sentence as “The police officer killed the robber.” Why does the learner make this misinterpretation? It cannot be due to L1 influence because Spanish has the exact same construction: *El policía fue matado por el ladrón*.

Imagine another English speaker learning Spanish in a formal setting. That learner studies the preterit (simple past) in Spanish. A month later she hears someone say *Juan estudió en Cuernavaca* ‘John studied in Cuernavaca’. However, she interprets this sentence to mean that John is studying in Cuernavaca, even though she has studied and practiced past tense formation in Spanish and even though English also clearly marks past from present (e.g., ‘studies’ vs. ‘studied’). Why does she make this misinterpretation?

Input processing (IP) is concerned with these situations, the reason being that acquisition is, to a certain degree, a by-product of comprehension (see, e.g., Truscott & Sharwood Smith, 2004). Although comprehension cannot guarantee acquisition, acquisition cannot happen if comprehension does not occur. Why? Because a good deal of acquisition is dependent upon learners making appropriate **form–meaning connections** during the act of comprehension. A good deal of acquisition is dependent upon learners correctly interpreting what a sentence means (Carroll, 2001; VanPatten & Rothman, 2014; White, 1987).

In this chapter, I deal with the fundamentals of IP and the research associated with it. What will become clear is that IP is not a comprehensive theory or model of language acquisition. Instead, it aims to be a theory or model of what happens during comprehension that may subsequently affect or interact with other processes. I will begin with a sketch of the theory and its constructs.

VanPatten

The Theory and Its Constructs

IP is concerned with three fundamental questions that involve the assumption that an integral part of language acquisition is making form–meaning connections during comprehension:

- Under what conditions do learners make *initial* form–meaning connections?
- Why, at a given moment in time, do they make some and not other form–meaning connections?
- What internal psycholinguistic strategies do learners use in comprehending sentences and how might this affect acquisition?

Let's take a concrete example based on the introduction of this chapter. In English as an L2, learners must, at some point, map the meaning of PASTNESS onto the verb inflection /-t/ (or “-ed” in written form). How does this happen and why don't learners do this from the first time they encounter this form in a context in which the speaker is clearly making reference to the past? In this regard, IP is a model of moment-by-moment sentence processing during comprehension and how learners connect or don't connect particular forms with particular meanings at a given moment in time. It is a model of how learners derive the initial data from input for creating a linguistic system, that is, the data that are delivered to other processors and mechanisms that actually store and organize the data (e.g., UG; see Chapter 3¹). This can be sketched as in Figure 7.1.

IP makes a number of claims about what guides learners' processing of linguistic data in the input as they are engaged in comprehension. These claims can be summarized as follows.

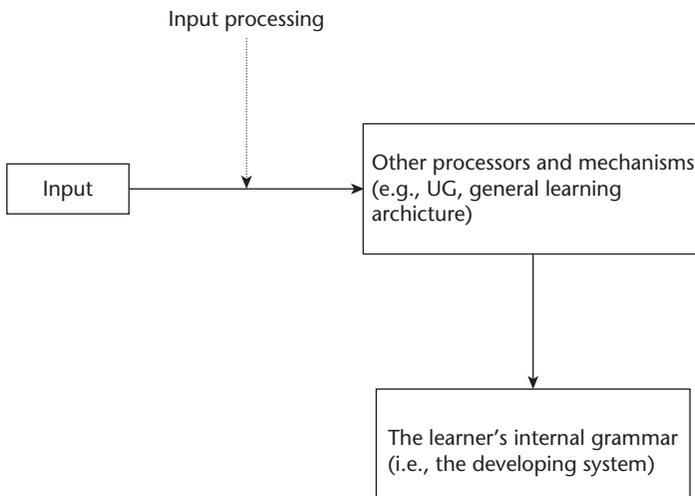


FIGURE 7.1 Where IP fits into an acquisition scheme.

Input Processing in Adult SLA

- Learners are driven to get meaning while comprehending.
- Comprehension for learners is initially quite effortful in terms of cognitive processing and working memory. Unlike L1 native speakers, L2 learners must develop the ability to comprehend, and comprehension for some time may tax the computational resources as learners engage in the millisecond-by-millisecond analysis of a sentence. This has consequences for what the input processing mechanisms will pay attention to.
- At the same time, learners are limited capacity processors and cannot process and store the same amount of information as native speakers can during moment-by-moment processing.
- Learners may make use of certain universals of IP but may also make use of the L1 input processor (or parser, which we will define shortly).

The first claim has led to the principle in IP that learners will seek to grasp meaning by searching for lexical items, although the precise manner in which this is done is still not clear.² In other words, learners enter the task of SLA knowing that languages have words. They are thus first driven to make form–meaning connections that are lexical in nature. For example, if they hear “The cat is sleeping” and this sentence is uttered in a context in which a cat is indeed sleeping, the learner will seek to isolate the lexical forms that encode the meanings of CAT and SLEEP, for instance, because the learner (a) has these concepts stored somewhere in the mind/brain based on past human experience and (b) knows that there are probably words for these concepts that must be somewhere in the speech stream. What is more, learners know that there are differences between content lexical items (e.g., ‘cat’, ‘sleep’) and noncontent lexical items (e.g., ‘the’, ‘is’) and will seek out content lexical items first as the building blocks of interpreting sentences. Thus, in “The cat is sleeping” the learner may initially only make the connections between cat–CAT and sleep–SLEEP (again, the reader is reminded that such a sentence is uttered in a context in which there is a cat sleeping). These claims are codified in the following IP principle:

The Primacy of Content Words Principle. Learners process content words in the input before anything else.

At this point, the learner most likely does not process the non-content words or the inflections on nouns and verbs, **process** referring specifically to actually making connections between meaning and form (as opposed to mere “noticing”). If the learner does process noncontent words and/or inflections, it is likely that the (other) processors responsible for data storage and grammar building may not yet be able to make use of them and will dump them, preventing further processing. One example is the auxiliary *do* in English. This auxiliary may be initially perceived by learners (it is almost always in sentence-initial position in *yes/no* questions such as *Do you like Mexican food?*; see the later definition of the “Sentence

VanPatten

Location Principle”), but because learners can’t attach any meaning to it in the early stages of processing, *do* does not get processed after it is initially perceived.

However, the model of IP also makes another claim regarding such things as inflections and grammatical markers, namely, that if the marker is redundant, it may not get processed because the learner is focused on getting content words first. Processing the content word (i.e., the Primacy of Content Words) obviates the need to process the grammatical marker *if it encodes the same meaning*. In this scenario, presented with a sentence such as ‘I called my mother yesterday’, learners will not process tense markers. Instead, they will derive tense from their processing of adverbs of time (e.g., ‘yesterday’, ‘tomorrow’). The Primacy of Content Words principle thus has consequences for what learners extract from the input when grammatical devices are present. This is codified in the following principle:

The Lexical Preference Principle. Learners will process lexical items for meaning before grammatical forms when both encode the same semantic (“real world”) information.

Learners will first tend to link semantic notions with content lexical items in the input and only later link grammatical forms that encode the same semantic notions. There are two possible consequences of this particular principle. The first is that learners will begin to process redundant grammatical markers only when they have processed and incorporated corresponding lexical forms into their developing linguistic systems. Thus, past tense markers won’t be processed and incorporated until learners have processed and incorporated lexical forms such as ‘yesterday’, ‘last night’, and so on.³ If so, the Lexical Preference Principle might be revised to state the following:

(Revised) Lexical Preference Principle. If grammatical forms express a meaning that can also be encoded lexically (i.e., that grammatical marker is redundant), then learners will not initially process those grammatical forms until they have lexical forms to which they can match them.

The other possible consequence is that learners may begin to rely exclusively on lexical forms for all information and never process grammatical markers in the input at all. In this scenario, the processing of lexical items “overrides” any need to process grammatical markers when redundancy is involved (i.e., the lexical form and the grammatical form express the same meaning as in PASTNESS/–ed, FUTURE/will, THIRD-PERSON SINGULAR/–s,⁴ and so on). In either scenario, one of the predictions of the model of IP is that learners will continue to focus on the processing of lexical items to the detriment of grammatical markers given that lexical items maximize the extraction of meaning, at least from the learner’s point of view. Grammatical markers will be processed later. In VanPatten and Keating (2007), we demonstrated this in one study in which learners of Spanish L2 with English L1

processed Spanish sentences in which the adverb matched or didn't match the verb for tense (e.g., 'Yesterday I am talking to John' vs. 'Now I'm talking to John'). Using eye-tracking (for a discussion of eye-tracking, see the section "What Kind of Evidence?"), we found that native speakers lingered or "regressed" to verb forms to verify temporal reference, whereas beginners and intermediate staged learners tended to linger or regress to adverbs to verify temporal reference. However, advanced learners patterned like native speakers, suggesting that eventually learners begin to focus on grammatical inflections in the input to obtain temporal information (see also Ellis & Sagarra, 2010; Lee, Cadierno, Glass, & VanPatten, 1995). At the same time, VanPatten and Keating found that Spanish L1 speakers of English L2 did not begin the processing of English sentences by relying on the Spanish preference for verbs. Instead, their early-stage learners of English patterned after the English L1 learners of Spanish, using adverbials to process temporal reference in sentences, suggesting this strategy is universal and not dependent on L1 experience.

Not all grammatical markers are redundant. In English, *-ing* is the sole marker of the semantic notion of an event in progress as in 'The cat is sleeping [IN PROGRESS]'. There is no lexical indication of IN PROGRESS in the sentence with *-ing*. This contrasts with something like 'The cat sleeps ten hours everyday', where the meaning of *-s* of 'sleeps' [THIRD PERSON, SINGULAR, ITERATIVE] is encoded lexically in 'the cat [THIRD-PERSON, SINGULAR]' and 'everyday [ITERATIVE]'. Because learners always search for ways in which meaning is encoded, if it is not encoded lexically, only then will they turn to grammatical markers to see if a semantic notion is expressed there. Thus, if learners are confronted with something like *-ing* on verb forms, they will be forced to make this form-meaning connection sooner than say third-person *-s* because the latter is redundant and the former is not. This leads to another principle of IP:

The Preference for Nonredundancy Principle. Learners are more likely to process non-redundant meaningful grammatical markers before they process redundant meaningful markers.⁵

Until now, we have considered only grammatical markers that carry meaning such as *-s* on the end of a noun means 'more than one' and *-ing* means 'in progress'. But there are some grammatical markers, albeit not many, that do not carry meaning. Consider 'that' in the sentence 'John thinks that Mary is smart'. What real word semantic information does 'that' encode? It's not a tense marker. It's not an indication of whether or not the event is in progress or iterative. It's not a plurality marker or any other such semantically linked grammatical device. As a word, there is nothing you can point to in the world or describe and say "that's a 'that'" as you might with "that's a cow" and "that's love." It has a grammatical function, to be sure—to link two sentences (i.e., introduce an embedded clause) but it doesn't encode any semantic information. In Spanish, adjective agreement is similar. In the case of *el libro blanco* ('the white book') and *la casa blanca* ('the white

VanPatten

house’), there is no semantic reason why in one case *blanco* must be used and in another *blanca* must be used.⁶ Spanish just makes adjectives agree with nouns. The model of IP says that such formal features of language will be processed in the input later than those for which true form–meaning connections can be made. The principle says:

The Meaning before Nonmeaning Principle. Learners are more likely to process meaningful grammatical markers before nonmeaningful grammatical markers.

IP is more, however, than making form–meaning connections. When a person hears a sentence, whether in the L1 or the L2, that person also does a micro-second-by-micro-second computation of the syntactic structure of that sentence. This is called **parsing**. For example, in English when a person hears ‘The cat . . .’ the parsing mechanism (called a *parser*) does the following: the cat = NP (noun phrase) = subject. This is called a *projection* because the parser projects a syntactic structure (i.e., the parser is making the best guess at what the grammatical relationships will be among words). If a verb follows, the parser may continue in this path. For example: ‘The cat chased . . .’, the cat = NP = subject, chased = verb [so far, so good for the syntactic projection]. If a phrase like ‘the mouse’ comes next, the parser may continue: the cat = NP = subject, chased = verb, the mouse = NP = object; parsing completed, syntactic projection successful, sentence computed and understood. But if instead of ‘the mouse’ what follows is ‘by the boy’, the parser must reanalyze on the spot and project something different onto the syntactic structure: the cat = NP = subject, chased = verb, by the boy = oops, not an object therefore ‘the cat chased by the boy’ = NP = subject. If a verb follows such as ‘howled’ the parser continues: the cat chased by the boy = NP = subject, howled = verb, parsing completed and successful.

The previous description of parsing is greatly simplified to be sure,⁷ but for the present discussion it allows us to ask the following question: how do learners parse sentences in the L2 when they do not have a fully developed parser as they do for L1 sentence processing? (Again, I am ignoring here how learners come to perceive word boundaries and isolate words during parsing.) The first avenue is that learners possess universal parsing strategies (or procedures) and apply these as they begin interacting with the L2 input. The other avenue is that learners transfer or attempt to transfer their L1 parsing strategies (or procedures) when interacting with the L2 input. These two positions are clear when we examine sentences such as the following in English and Spanish:

- (1) a. Mary hates John.
- b. María detesta a Juan.
- c. A Juan María lo detesta.

Input Processing in Adult SLA

- (2) a. Mary hates him.
 b. María lo detesta.
 c. Lo detesta María.
- (3) a. She hates him.
 b. Lo detesta.

In English, only subject–verb–object (SVO) order is possible, regardless of whether an object is a full noun (*John*) or a pronoun (*him*) as in (1a), (2a), and (3a). This is true whether the sentence is a simple declarative or whether it is a *yes/no* question. In Spanish, however, although SVO is certainly prototypical, SOV (with pronouns as in 2b), OVS (with full nouns and pronouns as in 1c and 2c), and OV (when the subject is null, that is, not expressed as in 3b).⁸ In Spanish, OV and OVS are fairly standard for *yes/no* questions, are not infrequent in simple declaratives, and are the prototypical orders for sentences containing certain verbs. So what happens when a language learner, say of English L1 background, first encounters (and continues to encounter) OVS and OV type sentences? Research has shown that such learners misinterpret such sentences and reverse “who does what to whom.” In the case of *A Juan lo detesta María*, learners misinterpret this as ‘John hates Mary’ rather than ‘Mary hates John’. In the case of *Lo detesta María*, they misinterpret this sentence as ‘He hates Mary’ rather than ‘Mary hates him’. The result is that incorrect form–meaning connections are made (e.g., *lo* = he[subject] rather than *lo* = him[object]) and wrong data about sentence structure is provided to the internal processors responsible for storage and organization of language; in this case, these processors receive incorrect information that Spanish is rigid SVO and the pronoun system becomes a mess.

The question is this: is this parsing problem due to some universal strategy⁹ or to the English parser interacting with Spanish input data? In previous research, I have taken the position that this is a universal strategy and posed the following principle:

The First-Noun Principle. Learners tend to process the first noun or pronoun they encounter in a sentence as the subject.

Under this universal position, any learner, whether from an SVO language or a language with flexible word order or rigid OVS order, would initially process the first noun as the subject.

Under the alternative position, that the L1 parser is transferred into L2 IP, the principle would look different and would have different consequences. The principle might look like this:

The L1 Transfer Principle. Learners begin acquisition with L1 parsing procedures.

VanPatten

In this case, problems would be language specific in terms of transfer. So, the Italian speaker learning Spanish would not have difficulty with OV and OVS structures in Spanish because these exist in Italian (e.g., *Lo vede Maria* ‘Maria sees him’) and the L1 parser has computing mechanisms for dealing with them. The English speaker, on the other hand, would have difficulty due to the rigid word order of English with no parsing mechanism to handle non-SVO structures (except cleft sentences such as “Him I hate”) (see Isabelli, 2008, for a sample study on this issue).

A question arises with this example: Is the transfer due to syntactic parsing or lexical transfer? Spanish and Italian share object pronouns such as *lo* and *la* so that the Italian speaker learning Spanish can transfer these lexical items along with their functional features into the new lexicon. The English speaker cannot do this. The underlying features of *lo* prohibit it from being taken as a subject in Italian, and presumably this would happen in Spanish as L2 for these learners. On the other hand, there is research on the acquisition of passives that suggests that word for word passive structure equivalents in languages like English and French do not transfer, so that early-stage learners of French tend to misinterpret passives in terms of who does what to whom (Ervin-Tripp, 1974). Thus, the question is open as to whether and to what degree there is L1 influence in basic IP, and whether that influence is an actual processing procedure or lexical influence.

Other factors may influence how learners parse and thus interpret sentences. Consider the following verb: *scold*. Which is more likely, for a parent to scold a child or a child to scold a parent? In the real world, the first situation is more likely. So what happens if a learner hears ‘The child scolded the mother’? In such cases, it is possible (though not necessary) that the probability of real life scenarios might override the First Noun Principle (or the alternative L1 Transfer Principle). The learner might incorrectly reparse the sentence to mean ‘the parent scolded the child’ and send information to the internal processors that the language has OVS structures (when it may not). This is what would happen during parsing under this scenario: the child = NP = subject, scolded = verb, the parent = NP = object, but wait, children don’t scold parents, parents scold children so the sentence must mean that the parent scolded the child, reanalyze the parse: the child = NP = object, scolded = verb, the parent = NP = subject. The influence of what are called event probabilities is captured in the following principle:

The Event Probability Principle. Learners may rely on event probabilities, where possible, instead of the First-Noun Principle to interpret sentences.

Similarly, learners also come to the task of parsing knowing that certain verbs require certain situations. For example, the verb ‘kick’ requires an animate being with legs for the action to occur. Thus, people, horses, frogs, and even dogs can kick, but snakes, rocks, and germs cannot kick. When confronted with the

Input Processing in Adult SLA

sentence ‘The cow was kicked by the horse,’ the First-Noun Principle (or L1 Transfer Principle) may cause a misinterpretation: The cow did the kicking. However, when confronted with the sentence ‘The fence was kicked by the horse’, a faulty interpretation is unlikely (how can a fence kick anything?) and the sentence may actually cause the parser to reanalyze what it just computed (assuming there is time to do so). This situation involves what is called *lexical semantics*. Lexical semantics refers to how the meanings of verbs place requirements on nouns for an action or event to occur. Does the event expressed by the verb require an animate being to bring the event about? Does the event require particular properties of a being or entity for the event to come about? Note that lexical semantics is different from event probabilities in a fundamentally different way: with event probabilities, either noun may be capable of the action but one is more likely. With lexical semantics, it is the case that only one noun is capable of the action. Thus, both a child and a parent can scold, but one is more likely to scold the other (event probabilities). However, between the two entities ‘horse’ and ‘fence’ a horse can kick something else; a fence cannot kick something else (lexical semantics). The use of lexical semantics during parsing can be expressed by the following principle:

The Lexical Semantics Principle. Learners may rely on lexical semantics, where possible, instead of the First-Noun Principle (or an L1 parsing procedure) to interpret sentences.

Research on L2 IP has also demonstrated that context may affect how learners parse sentences. Consider the following two sentences:

- (4a) John is in the hospital because Mary attacked him.
 (4b) John told his friends that Mary attacked him.

In Spanish, the embedded clause can either be SOV (*María lo atacó*) or OVS (*lo atacó María*). If the First-Noun Principle or its L1 alternative were active (for English speakers, say), the OVS structure could be misinterpreted as ‘he attacked Mary’. But note that if the preceding context is “John is in the hospital” a misinterpretation is less likely. Why would John be in the hospital if he attacked Mary? He’d be in jail, if anything. No, it’s most reasonable that he’s in the hospital as the result of an injury so Mary must have attacked him. If the preceding context is neutral as in “John told his friends . . .,” there is nothing to constrain interpretation of the following clause: John could equally tell his friends that he attacked Mary or that Mary attacked him. The effects of context, then, result in another principle:

The Contextual Constraint Principle. Learners may rely less on the First Noun Principle (or L1 transfer) if preceding context constrains the possible interpretation of a clause or sentence.

VanPatten

So far, we have dealt with factors that affect the connection of form and meaning during processing, as well as parsing (e.g., computation of syntactic structure). There is another area of processing that enters the picture: where elements are more likely to appear in a sentence. Imagine you hear the following set of numbers:

11 32 51 4 8 42 71 39 7 22 60 15 96 12 85 44

If you are typical, you will remember the numbers at the beginning (say 11, 32) before you would remember numbers at the end (say 44, 85) and in turn would remember both before you would remember any numbers in the middle (say 39, 7, or 60). This ability to process and remember best things at the beginning, followed by things at the end, followed by things in the middle is true of a good deal of human information processing, and language is no different. We can couch this phenomenon in the following principle:

The Sentence Location Principle. Learners tend to process items in sentence initial position before those in final position and those in medial position.

Barcroft and VanPatten (1997) found this to be the case for the initial detection of the grammatical morpheme *se* in Spanish, in which the morpheme was much more frequently detected by naïve learners of Spanish in sentences such as *Se levanta Juan temprano todos los días* compared with *Todos los días Juan se levanta temprano*.

To be sure, the principles just outlined (and any others that might affect IP¹⁰) do not act in isolation. One can envision, for example, that even though object pronouns in Spanish can and do appear in initial position (e.g., in OVS structures) this does not mean that learners will process them correctly. The First-Noun Principle would most likely interact with object pronouns so that learners may indeed process the object pronoun because it is in initial position in an OVS structure (as opposed to when it might normally appear in medial position in the sentence) but they would process it incorrectly. What is important to keep in mind here is that the term ‘process’ means that learners link meaning and form, either locally (words, morphology) or at the sentence level. As I will discuss later, processing is not an equivalent term for ‘noticing’.

What Counts as Evidence?

It is probably clear that only data gathered during comprehension-oriented research is appropriate for making inferences about IP. Typical research designs include sentence interpretation tasks and eye tracking experimentation.

Sentence Interpretation Tasks

In this kind of experimentation, participants hear sentences and indicate what they understand. For example, in the case of word order, participants might hear

“The cow was kicked by the horse.” They are then asked to choose between two pictures that could represent what they heard. In one picture, the cow is kicking the horse. In the other, the horse is kicking the cow. If the participant chooses the first picture, then we can infer that the First-Noun Principle is guiding sentence processing. If the participant selects the second picture, then the First-Noun Principle is not guiding sentence processing (see, e.g., VanPatten, 1984).

With form–meaning connections, a variation on this type of task may occur. Participants might hear sentences such as *Mi mamá me llamó por teléfono* ‘My mother called me on the phone’ and *Mi amigo me ayuda con la casa* ‘My friend is helping me with the house’. Note that there are no adverbials of time in the sentences. At the same time, the subject may hear similar sentences but an adverbial of time is present, as in *Mi mamá me llamó anoche por teléfono* ‘My mother called me on the phone last night’. Learners are then asked to indicate whether the action occurred in the past, is happening now or happens everyday, or is going to/will happen in the future. If learners fail to correctly make such indications when the adverbs are not present in sentences but correctly do so when they are, this tells us they are relying on lexical items to get semantic information and not verbal inflections.

Eye-tracking

Eye-tracking research involves having participants read sentences or text on a computer screen while tiny cameras track eye-pupil movements via a very small infrared light directed at their pupils. As people read, they unconsciously skip words and parts of words, regress to some words, and so on, on a millisecond-by-millisecond basis (see Keating, 2013, for an overview of eye-tracking research in L2). Eye-tracking can reveal, for instance, whether learners attend to verbal inflections during IP and whether they regress like native-speakers do when encountering something that does not seem right. For example, given the sentence ‘Last night my mother calls me on the phone’, native speakers eye-tracking reveals fixations on the verb ‘calls’ often with regression to the phrase ‘last night’. We do not see the same eye-movement behavior from beginning and intermediate learners. However, when asked to press a button to indicate past, present, or future for the action, both native speakers and nonnatives always press ‘past’. These combined results suggest that learners do indeed rely on lexical cues for meaning and skip over grammatical markers that encode the same meaning as they process sentences.

There are other on-line methods in addition to eye-tracking that can be used to research IP. The reader is referred to Jegerski and VanPatten (2013) for a volume dedicated to psycholinguistic methods used in L2 research.

Common Misunderstandings

There are several common misunderstandings about both IP and the specific model of IP described here.

VanPatten

Misunderstanding 1: IP is a model of acquisition. People who claim this believe that IP attempts to account for acquisition more generally. It does not. As stated, IP is only concerned with how learners come to make form–meaning connections or parse sentences. Acquisition involves other processes as well, including accommodation of data (how the data are incorporated into the developing linguistic system and why they might not be), how Universal Grammar acts upon the data, restructuring (how incorporated data affect the system, such as in when regular forms cause irregular forms to become regularized), how learners make output, how interaction affects acquisition, and others. In short, *IP is only concerned with initial data gathering*. Consider the following analogy: honey making. Bees have to make honey. To do so, they have to gather nectar. They go to some flowers and not others. They have to find their way to flowers and then back to the hive. They then process the nectar to produce honey. They build combs to store the honey, and so on. All of these endeavors are part of honey making. But we can isolate our research to ask the following questions: How do bees gather nectar? Why do they select some flowers and not others? This is similar to the concerns of IP: how do learners make form–meaning connections? Why, at a given period in time, do they make some connections and not others? IP isolates one part of acquisition; it is concerned with the “nectar gathering aspect” of acquisition and leaves other models and theories to account for what happens to the nectar when it gets to the hive. (See Rothman & VanPatten, 2013, as well as VanPatten, 2014a, for a discussion of how various theories are necessary to account for the complex picture that is acquisition.)

Misunderstanding 2: Input processing discounts a role for output, social factors, and other matters. Under this scenario, the person believes that because there is a focus on one aspect of acquisition, that the researcher or scholar does not believe anything else plays a role in acquisition. We thus hear of such things as “the input versus output debate” or “comprehension versus production” in SLA. Again, if we go back to the honey analogy, clearly someone who examines how bees collect nectar and why they do it they way they do it understands quite well that gathering nectar is not the same as making honey. And hopefully someone who researches what happens in the hive once the nectar arrives clearly understands that without nectar there is no honey-making. That a researcher focuses on one particular part of the acquisition puzzle, does not mean he or she discounts the rest. It means that the researcher is merely staking out a piece of the puzzle to examine in detail.

Misunderstanding 3: Input processing is equivalent to “noticing.” Some readers of research on IP mistakenly equate processing with noticing. As a reminder to the reader, processing means that learners are connecting meaning and form. Examples are /kaet/ means ‘cat’, however this concept is represented in the mind of the learner, /tahkt/ means that the talking happened in a past time frame, and ‘John was told a lie by Mary’ means that Mary did the lying to John. Noticing, as defined by Schmidt (e.g., Schmidt, 1990, 2001) does not entail a connection between form and meaning. Noticing simply means that learners have become

aware of a formal feature of language (including new words). In addition, noticing has not been applied to the sentence level; its use is almost always restricted to morpholexical form. The distinction between the two is important because in some publications, researchers have argued against the principles outlined in this chapter. However, their research methods use techniques for noticing and not processing, including measures of knowledge (e.g., grammaticality judgment tasks), introspective think-alouds (e.g., “Tell me what you notice in what you are reading”), and mark-up tasks (e.g., “As you read, circle anything in the text that catches your attention”). One cannot use research paradigms for noticing to argue against principles related to processing (see, e.g., VanPatten, 2014b).

Misunderstanding 4: Input processing is a meaning-based approach to studying acquisition and ignores what we know about syntactic processes. People who make this claim are focused on aspects of the model in which lexical primacy and the quest to get meaning from the input drives sentence interpretation, for example. Their conclusion is understandable, but it is not correct. As we have seen with the issue of the First-Noun Principle and with parsing, the model is also concerned with syntactic aspects of parsing and how these affect sentence interpretation and processing (which in turn affects acquisition). What is more, sometimes those who believe IP to ignore syntactic processes may be thinking of what we know about adult native-speaking models of sentence interpretation, which are largely (but not exclusively) syntactic in nature. The idea is that if this is what native-speaking processing models entail, shouldn't L2 models do the same? The answer is maybe. The position taken by those of us in IP research is that other than the kinds of principles described here, processing develops over time. What learners begin with may not be processing mechanisms that can make full use of syntactic processes in sentence interpretation the way native speakers can. For example, in one experiment, researchers have shown that native speakers and nonnatives process “gap” sentences differently. Gap sentences are those in which a *wh*-element (e.g., *who*) has been moved out of one part of the sentence into another: “The nurse who the doctor argued that the rude patient had angered is refusing to work late.” In this kind of sentence, *who* (the relative clause marker) is actually linked to the verb *angered* (i.e., is the object of the verb *angered*). What the researchers noticed is that even though both natives and non-natives can equally determine who was rude to whom, their millisecond-by-millisecond processing reveals substantial differences in how they make use of syntactic processing with the nonnatives relying much more on lexical-semantic and other non-syntactic cues. This is referred to as the Shallow Structure Hypothesis (Clahsen & Felser, 2006). This does not mean that the model of IP and the SSH are equivalent; the point here is that it is possible to process sentences and not make full use of syntactic resources in doing so.

Misunderstanding 5: Input processing is a pedagogical approach. Some people believe that the model of IP as described here is a pedagogical model. This is because there is a pedagogical intervention called *processing instruction* (what some people mistakenly call “input processing instruction”) that is derived from insights about

VanPatten

IP. Processing instruction is directed at the following question: If we know what learners are doing wrong at the level of input processing, can we create pedagogical intervention that is comprehension-based to push them away from non-optimal processing? IP, however, is not about pedagogy nor is it concerned with what learners in classrooms do. As a model of processing, it is meant to apply to all learners of all languages in all contexts (in and out of classrooms). Thus, the First-Noun Principle could be researched with learners of English as immigrants in the United States, learners of English in a classroom in Canada, learners of English in a classroom in Saudi Arabia, and so on. The model attempts to describe what learners do on their own, the same way research on say Universal Grammar describes what learners do on their own regardless of instruction. With this said, there have been many more studies on processing instruction than on IP. Perhaps for this reason there is some confusion in the literature.

An Exemplary Study: Tight (2012)

In this study, Tight (2012) set out to investigate how learners interpret sentences with only one noun. His focus was verbs of the type 'listen' which can optionally take an object as in 'John listens to Mary' (SVO) and 'John listens well' (SV). In Spanish, these sentences would be, respectively, *Juan escucha a María* and *Juan escucha bien*. Tight was particularly interested in the objectless sentences. As we have seen, Spanish allows flexible word order under various discourse conditions such that both *Juan escucha bien* (SV) and *Escucha bien Juan* (VS) are possible. Tight wanted to see if the First-Noun Principle held when there was only one noun and it appeared in post-verbal position.

Tight tested L2 learners of Spanish with L1 English across three levels of university study: first semester ($n = 37$), third semester ($n = 39$), and fifth semester ($n = 23$). His participants heard a total of 16 target sentences, each one containing a subject noun in either pre- or postverbal position, a verb such as 'listen', 'call', 'understand' (among others), and no object noun; for example, *La profesora comprende* 'The professor understands' and *Comprende la mujer* 'The woman understands'. Thus, there were eight target SV sentences and eight target VS sentences using the same verb but not necessarily the same subject noun. Distractors consisted of simple declarative sentences such as *El chico es alto* 'The boy is tall' and *El maestro duerme ocho horas* 'The teacher sleeps for eight hours'. His method was relatively simple. Participants heard pre-recorded sentences and then indicated on a response sheet the best translation (e.g., *Escucha bien Juan A. Juan listens well. B. They listen to Juan well*).

Tight's results yielded two sets of results. First, that as proficiency increased, so did accuracy on sentence interpretation. This is not surprising and is not of central concern here. The second set of results center on how the participants actually interpreted SV and VS sentences. To be expected, they were quite accurate on the SV sentences, with all three semester levels scoring at 95% or above. The picture

was quite different for the VS sentences. Here, the three groups' scores were significantly lower, with the percentage of correct scores ranging from 25% to 48%. What this means is that the participants were misinterpreting subjects as objects.

At first blush, these results seem to run counter to any prediction from the First-Noun Principle, which predicts that learners will tend to interpret the first noun they encounter as the subject. But in Tight's VS examples, the participants tended to interpret the first noun they encountered as the object, while probably projecting a null subject (e.g., for *Comprende la mujer*, they may have assumed that someone 'out there' understood the woman). What makes this study exemplary is not only its simplicity but that it suggests other possible corollaries for the First-Noun Principle or even a refinement of the First-Noun Principle. For example, based on Tight's results, we might amend the First-Noun Principle to say that learners tend to interpret the first noun they encounter as the subject when two or more nouns are present. If only one noun is present, then learners may interpret a preverbal noun as the subject and a postverbal noun as the object. (For ease of discussion, I am using noun here to mean both full nouns and pronouns.) What also makes this study exemplary is the additional research warranted by the findings. What is missing in Tight's study and in previous research are VNN sequences of the type *Comprende Juan a María* and *Comprende a María Juan*, both meaning 'John understands Mary'. Both Tight's results and previous research suggest two possibilities: either the first noun is interpreted as the subject or it is not. In addition, given that Tight used a translation task as opposed to the standard picture-matching task used in IP research on the First-Noun Principle, it remains to be seen to what extent a translation task reduces the effects of the First-Noun Principle. Thus, Tight's research (which is as recent as 2012 compared to VanPatten's original study in 1984) suggests that continued research on the parsing of simple sentences and how learners interpret nouns (as well as the research designs used to do so) is justified.

Explanation of Observed Findings in SLA

Observation 1: Exposure to input is necessary for SLA; Observation 2: A good deal of SLA happens incidentally. It goes without saying that IP incorporates the important role of input. What is more, however, is that the model of IP would suggest that most of acquisition is incidental. As we noted earlier, IP is dependent on comprehension (learners actively engaged in getting meaning from what they hear or read). In a certain sense, acquisition is a byproduct of learners' actively attempting to comprehend input. Their primary focus is on meaning and the connection of form-meaning and the parsing of sentences is a result of the learners' communicative endeavors.

Observation 4: Learners' output (speech) often follows predictable paths with predictable stages in the acquisition of a given structure. Although it is not the goal of IP to explain all of SLA, there are certain observed phenomena for which it can help to account.

VanPatten

Due to its concern with the question of “Why do learners make some form-meaning connections and not others?” it can speak to orders of acquisition. When taken together, the various principles of IP account for why the verbal inflection system in English, for example, emerges the way it does. Learners will first process (and subsequently acquire) *-ing* due to the Meaning before Non-meaning Principle and due to the Lexical Preference Principle (no lexical items carry the meaning of *-ing*). Third-person *-s* will be acquired last because of the Preference for Nonredundancy Principle (third-person *-s* is always redundant whereas the other verbal inflections in English are not). Likewise, the initial stages of the acquisition of negation in English, for example, are marked by the isolation of specific words to indicate negation: notably ‘no’ and unanalyzed ‘don’t’ (that is, the learner does not know that ‘don’t’ consists of two words, ‘do’ and ‘not’, and merely uses it as a substitute for ‘no’). What this suggests is that initial input processing is attempting to isolate content words to indicate negation.

Observation 7: There are limits on the effects of frequency on SLA; Observation 8: There are limits on the effect of a learner’s first language on SLA. Within IP, frequency is not a major factor. Because IP is concerned with initial processing and the factors that affect it, frequency does not play a major role. For example, adjective agreement is frequent in Spanish, but the principle regarding redundancy mitigates against initial processing of agreement. Other less frequent things, if they are not redundant, will get processed sooner. The problem with frequency is that sometimes it goes hand-in-hand with redundancy/nonredundancy. For example, *-ing* may be more frequent in English than simple past tense, *-ed*. But *-ing* is also never redundant whereas *-ed* often is (see earlier). The question then becomes is it frequency that gets *-ing* processed before *-ed* or is it the nonredundancy and meaning based nature of *-ing* as suggested by the Lexical Preference Principle? Such questions can only be answered by continued research on a variety of languages.

IP accounts for limits of the effects of both frequency and the L1. The various principles that deal with Lexical Preference, Nonredundancy, Meaning before Nonmeaning, and so on, would mitigate against the sheer effects of frequency as well as against the L1. Just because a form is highly frequent does not mean it will be processed if (a) it is redundant and/or (b) if it carries no meaning, for example. At the same time, if parsing strategies turn out to be at least partially universal rather than L1 based (see the discussion on the First-Noun Principle), then the model of IP would account even more for the limited effects of the L1.

Observation 9: There are limits on the effects of instruction on SLA. The present model of IP also helps to account for the limited effects of instruction. A good deal of instruction is centered on product rather than process. That is, instruction is most often concerned with rules and with learner output. Our model of IP suggests that part of the learning problem is in processing. Thus, if instruction fails to account for how things get processed in the input, it may not be as useful as we think. Work on IP has led to an instructional intervention called *processing instruction*, which speaks to this very issue. In processing instruction, instruction actually

seeks to intervene during IP, thus altering learners' processing behaviors and leading to more grammatically rich (one might even say more "appropriate") intake.

Observation 10: There are limits on the effects of output (learner production) on language acquisition. Although IP does not speak directly to issues of output, the model would suggest that the effects of learner output would be constrained if output does not help to alter learners' processing behaviors. For example, an English-speaking learner of Spanish can produce all the sentences he or she wants in a variety of contexts. But if the interaction does not lead to the learner to realize that he or she has misinterpreted an OVS sentence, then little will change in terms of acquisition. That learner will continue to process Spanish first (pro)nouns as subjects. Under this scenario, output is useful if it leads learners to register and then correct their misinterpretations of others' meanings (see VanPatten, 2004c, for some discussion on this).

The Explicit/Implicit Debate

The model of IP presented in this chapter is neutral/agnostic on the issue of whether adults engage implicit or explicit processes when learning a second language. In most models of parsing and processing, syntactic computations and mappings occur outside of awareness, except perhaps in the case of learning lexical items (see, e.g., Truscott & Sharwood Smith, 2004, 2011). Indeed, processing would be a very laborious process if the learner stopped at each word or piece of morphological datum to explicitly register it (e.g., "this is a verb, it means X, it refers to a 3rd person, it's in the past tense" and so on). Such explicit processing would grind comprehension to a halt. People can and do experience moments of "what?" while listening or reading, very brief milliseconds of recognizing that what they heard or read is not what was meant. But even in such cases, it is not clear that the resolution of what was meant happens explicitly; that is, awareness of a problem does not necessarily entail awareness of how to resolve the problem (e.g., "oh, that was a reduced relative clause and not a main verb . . .", "oh, that was a past tense verb form and not a present tense verb form . . ."). And, there is some evidence that, as far as explicit processing is concerned—that is, the explicit teaching of information about the language and whether that information can be used during on-line comprehension—explicit information usually is not and probably cannot be used to process language (e.g., VanPatten, Borst, Collopy, Qualin, & Price, 2013).

Conclusion

IP as a phenomenon should be viewed as one part of a complex set of processes that we call acquisition. As such, any model or theory of IP should not be expected to be a model or theory of acquisition more generally. Ideally, one would like to see various models that account for different processes in acquisition and when viewed this way, a better picture of acquisition ought to emerge.

VanPatten

Models and theories undergo change and evolution and this is no less true for a model of L2 IP. As is the case with almost every theory and model in SLA, challenges have been leveled against IP resulting in lively debate in the professional literature (see, e.g., DeKeyser, Salaberry, Robinson, & Harrington, 2002; VanPatten, 2002, for one exchange; and Harrington, 2004; Carroll, 2004; VanPatten, 2004b, for another exchange). However, these challenges are leveled at the specifics of the model and not at the underlying questions that drive the model, namely, “Why some form–meaning connections and not others? Under what conditions?” Some kind of model of input processing will need to coexist alongside models that deal with how linguistic data are incorporated into the developing system as well as how learners access the system to make output, and so on. The current model of IP is our first pass at considering how learners process input during real time comprehension.

Discussion Questions

1. IP theory claims that lexical items are privileged in input processing (i.e., the Primacy of Content Words Principle). Do you think lexical items are privileged in acquisition more generally? What about learner attempts to produce language? What about learner strategies in terms of overt attempts to learn a language (e.g., conscious strategies to try and comprehend what someone else is saying)?
2. VanPatten argues that L2 parsing may involve universal procedures or it may be L1-based initially (i.e., the L1 parser is “transferred”). Or some combination of both may be at play. Which do you think is more likely? Can you think of additional experimentation and data that would help to determine which position is more likely?
3. The theory of IP in this chapter claims that learners’ initial orientation toward input is to process it for meaning; that is, they do what they can to extract basic meanings from sentences. Can you think of any circumstances under which learners would approach processing sentences for form/structure first? Do you think this leads to acquisition? Keep in mind the definition of processing as the connection of form and meaning.
4. Take the language you teach or are most familiar with and try to apply either the Lexical Preference Principle or the First-Noun Principle to input processing for that language. Can you make any predications about processing problems? For example, under the Lexical Preference Principle, what formal features of the language tend to co-occur with lexical items or phrases that express the same concept? What is your prediction about processing?
5. One of the most well-known outcomes of the model of IP is VanPatten’s *processing instruction*. Select one of the following studies and present it to your class: Cadierno (1995), VanPatten et al. (2013), Uludag and VanPatten (2012).

Input Processing in Adult SLA

6. Read the exemplary study presented in this chapter and prepare a discussion for class in which you describe how you would conduct a replication study. Be sure to explain any changes you would make and what motivates such changes.

Notes

1. Although I take a generative perspective on the nature of representation and “what is learned” (see, e.g., Rothman & VanPatten, 2013; VanPatten & Rothman, 2013), IP is compatible with a variety of frameworks as the principles that underlie IP presented in this chapter are not generative in nature.
2. What is meant is that it is not clear how learners of different languages actually come to know where word boundaries are in the language, but clearly they do. Issues of how learners process sounds and segment units of speech are part of another set of processes (see, e.g., Carroll, 2001).
3. Clearly a learner need not process and incorporate all possible lexical items for a given grammatical marker. It is enough that the learner process one or two, for example.
4. Although the term “third-person singular” sounds like a grammatical concept and not a semantic concept, it actually is semantic and means “someone other than you or me.” In English, the third-person singular form of a verb also carries the feature “iterative” (habitual) as opposed to “in progress” (at one particular point in time).
5. Learners do not enter the task of processing input already knowing what things are redundant and what things are not. They do, however, enter the task unconsciously knowing that redundancy exists in language more generally. The point here is that if a learner knows that the context is referring to an action in progress, he or she will look to see how that is encoded lexically first. If it is not, as in the case of English, then he or she will subsequently begin looking for grammatical markers that mark this nonredundant meaning.
6. It is unfortunate that ancient grammarians adopted the semantic term “gender” to apply to nouns when nonanimate nouns such as house, shoe, moon, pie, and lamp do not have gender. So when we talk about “gender agreement” in a language like Spanish, we are not talking about adjective agreement due to the biological sex of anything. We are talking about a purely grammatical phenomenon. To be sure, some languages, such as Basque, base gender on animacy, and languages may have three, four, five, and even more categories of “gender” that require agreement or noun marking.
7. For some work on parsing, see Pritchett (1992), Carreiras, García-Albea, and Sebastián-Gallés (1999), and Clifton, Frazier, and Rayner (1994).
8. Spanish is what is called a “null subject” language in that subject pronouns are not required in simple declarative sentences, and in some cases, pronouns are prohibited. For example, in most discourse situations, subject pronouns are not used as in *¿Qué haces?* ‘What are you doing?’ In this sentence, there is no overt ‘you’ expressed in Spanish. What is more, in English, “It’s raining” can never be “*Is raining.” In Spanish, ‘it’ cannot be expressed under any circumstances as a subject of weather expressions or time expressions, and the sentence is simply *llueve* (or *está lloviendo*—progressive) with no overt subject noun or pronoun equal to ‘it’.
9. Universal strategy should not be construed as being part of Universal Grammar (see Chapter 3).
10. Other possible factors remain to be investigated that we have reason to believe may be important, such as acoustic stress: syllables with stress may be processed before syllables with weak stress. Frequency of occurrence of a form in the input is another. However, these particular strategies don’t directly affect how learners connect meaning to form, either at the local level or the sentence level. And in some cases, they underlie principles presented here (e.g., content words tend to carry strong stress).

VanPatten

Suggested Further Reading

- VanPatten, B. (2009). Processing matters in input enhancement. In T. Piske & M. Young-Scholten (Eds.), *Input matters* (pp. 47–61). Clevedon, England: Multilingual Matters.
- This book chapter compares and contrasts three frameworks related to input processing, discussing such things as structure distance and the role of the L1.
- VanPatten, B. (Ed.). (2004). *Processing instruction: Theory, research, and commentary*. Mahwah, NJ: Lawrence Erlbaum.
- This book is, essentially, an update on VanPatten's (1996) book *Input Processing and Grammar Instruction: Theory and Research*. The 2004 volume contains two important expository essays (one on input processing and one on processing instruction). Also included are 10 previously unpublished research papers. What makes the book interesting is the inclusion of commentary and criticism by six other scholars, offering a balance for the reader.
- VanPatten, B., & Rothman, J. (2014). Against "rules." In A. Benati, C. Laval, & M. J. Arche (Eds.), *The grammar dimension in instructed second language acquisition: Theory, research, and practice* (pp. 15–35). London, England: Continuum Press.
- This chapter takes a generative perspective on language and language acquisition, while demonstrating the role that processing plays in acquisition. It thus situates one theory alongside another to demonstrate how two perspectives are not in competition but may work together to help understand acquisition.
- VanPatten, B., Williams, J., & Rott, S. (2004). Form–meaning connections in second language acquisition. In B. VanPatten, J. Williams, S. Rott, & M. Overstreet (Eds.), *Form–meaning connections in second language acquisition* (pp. 1–26). Mahwah, NJ: Lawrence Erlbaum.
- This first chapter in the VanPatten, Williams, Rott, and Overstreet book offers an overview of the many factors that contribute to how form–meaning connections are made and strengthened. As such, it extends beyond the scope of IP theory, demonstrating how IP fits into a larger picture of acquisition.

References

- Barcroft, J., & VanPatten, B. (1997). Acoustic salience: Testing location, stress and the boundedness of grammatical form in second language acquisition input perception. In W. R. Glass & A. T. Pérez-Leroux (Eds.), *Contemporary perspectives on the acquisition of Spanish: Vol. 2. Production, processing, and comprehension* (pp. 109–121). Somerville, MA: Cascadilla Press.
- Cadierno, T. (1995). Formal instruction from a processing perspective: An investigation into the Spanish past tense. *The Modern Language Journal*, 79, 179–193.
- Carreiras, M., García-Albea, J., & Sebastián-Gallés, N. (Eds.). (1999). *Language processing in Spanish*. Mahwah, NJ: Lawrence Erlbaum.
- Carroll, S. (2001). *Input and evidence: The raw material of second language acquisition*. Amsterdam, Netherlands: John Benjamins.
- Carroll, S. (2004). Commentary: Some general and specific comments on input processing and processing instruction. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 293–309). Mahwah, NJ: Lawrence Erlbaum.
- Clahsen, H., & Felser, C. (2006). Grammatical processing in language learners. *Applied Psycholinguistics*, 27, 3–42.
- Clifton, C., Frazier, L., & Rayner, K. (1994). *Perspectives on sentence processing*. Mahwah, NJ: Lawrence Erlbaum.

Input Processing in Adult SLA

- DeKeyser, R., Salaberry, R., Robinson, P., & Harrington, M. (2002). What gets processed in processing instruction? A commentary on Bill VanPatten's "Processing Instruction: An Update." *Language Learning*, 52, 805–823.
- Ellis, N. C., & Sagarra, N. (2010). The bounds of adult language acquisition: Blocking and learned attention. *Studies in Second Language Acquisition*, 32, 553–580.
- Ervin-Tripp, S. (1974). Is second language learning like the first? *TESOL Quarterly*, 8, 111–127.
- Harrington, M. (2004). IP as a theory of processing input. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 79–92). Mahwah, NJ: Lawrence Erlbaum.
- Isabelli, C. (2008). First-Noun Principle or L1 transfer in SLA? *Hispania*, 91, 465–478.
- Jegerski, J., & VanPatten, B. (Eds.). (2013). *Research methods in second language psycholinguistics*. New York, NY: Routledge.
- Keating, G. D. (2013). Eye-tracking with text. In J. Jegerski & B. VanPatten (Eds.), *Research methods in second language psycholinguistics* (pp. 69–92). New York, NY: Routledge.
- Lee, J. F., Cadierno, T., Glass, W. R., & VanPatten, B. (1995). The effects of lexical and grammatical cues on processing tense in second language input. *Applied Language Learning*, 8, 1–23.
- Pritchett, B. L. (1992). *Grammatical competence and parsing performance*. Chicago, IL: University of Chicago Press.
- Rothman, J., & VanPatten, B. (2013). On multiplicity and mutual exclusivity: The case for different theories. In M. P. García Mayo, M. J. Gutierrez-Mangado, & M. Martínez Adrián (Eds.), *Contemporary approaches to second language acquisition* (pp. 243–256). Amsterdam, Netherlands: John Benjamins.
- Schmidt, R. W. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129–158.
- Schmidt, R. W. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3–32). Cambridge, England: Cambridge University Press.
- Tight, D. G. (2012). The First-Noun Principle and ambitransitive verbs. *Hispania*, 95, 103–115.
- Truscott, J., & Sharwood Smith, M. (2004). Acquisition by processing: A modular perspective on language development. *Bilingualism: Language and Cognition*, 7, 1–20.
- Truscott, J., & Sharwood Smith, M. (2011). Input, intake, and consciousness: The quest for a theoretical foundation. *Studies in Second Language Acquisition*, 33, 497–528.
- Uludag, O., & VanPatten, B. (2012). The comparative effects of processing instruction and dictogloss on the acquisition of the English passive by speakers of Turkish. *International Review of Applied Linguistics*, 50, 187–210.
- VanPatten, B. (1984). Learner comprehension of clitic object pronouns in Spanish. *Hispanic Linguistics*, 1, 56–66.
- VanPatten, B. (1996). *Input processing and grammar instruction: Theory and research*. Norwood, NJ: Ablex.
- VanPatten, B. (2002). Processing the content of input processing and processing instruction research: A response to DeKeyser, Salberry, Robinson, and Harrington. *Language Learning*, 52, 825–831.
- VanPatten, B. (2004a). Input processing in second language acquisition. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 5–31). Mahwah, NJ: Lawrence Erlbaum.
- VanPatten, B. (2004b). Several reflections on why there is good reason to continue researching the effects of processing instruction. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 325–335). Mahwah, NJ: Lawrence Erlbaum.

VanPatten

- VanPatten, B. (2014a). Language acquisition theories. In C. Fäcke (Ed.), *Language Acquisition* (pp. 103–109). Berlin, Germany: Mouton de Gruyter.
- VanPatten, B. (2014b). Input processing by novices: The nature of processing and research methods. In Z.-H. Hong & R. Rast (Eds.), *Input processing at second language initial state*. Cambridge, England: Cambridge University Press.
- VanPatten, B. (2004c). On the role(s) of input and output in making form–meaning connections. In B. VanPatten, J. Williams, S. Rott, & M. Overstreet (Eds.), *Form–meaning connections in second language acquisition* (pp. 29–47). Mahwah, NJ: Lawrence Erlbaum.
- VanPatten, B., Borst, S., Collopy, E., Qualin, A., & Price, J. (2013). Explicit information, grammatical sensitivity, and the First-Noun Principle: A cross-linguistic study in processing instruction. *The Modern Language Journal*, 92, 506–527.
- VanPatten, B., & Keating, G. D. (2007, April). *Getting tense*. Paper delivered at the annual meeting of the American Association for Applied Linguistics, Costa Mesa, CA.
- VanPatten, B., & Rothman, J. (2014). Against “rules.” In A. Benati, C. Laval, & M. J. Arche (Eds.), *The grammar dimension in instructed second language acquisition: Theory, research, and practice* (pp. 15–35). London, England: Bloomsbury Press.
- White, L. (1987). Against comprehensible input: The input hypothesis and the development of L2 competence. *Applied Linguistics*, 8, 95–110.