1 *Setting the Context*

1.0 General Introduction

This book is about the acquisition of a third language (or more additional languages) in adulthood; that is, when a bilingual – a child who is a simultaneous (2L1) bilingual, a child who has sequentially acquired a second language (L2) or an adult who is a sequential L2 bilingual – acquires yet another language later in life. Is learning a third (L3) or more (L*n*) language different from learning an L2 or just more of the same? If the process is different or similar, what are the implications for important questions related to linguistics, psychology, cognitive science and other fields? Addressing and providing some answers to the aforementioned is the overarching goal of this book.

For a very long time, it was taken for granted that all instances of nonnative, sequential language acquisition were fundamentally equivalent. Such a claim was never stated explicitly; however, standard empirical practice in the study of adult L2 acquisition across virtually all paradigms suggested that few people were preoccupied with the heterogeneous groups in so-called L2 studies before the turn of the millennium. In fact, it was not until the mid-2000s that researchers, at least those studying the acquisition of morphosyntax, began to contemplate in earnest the effect of knowing more than one previous language and thus to differentiate true L2 from multilingual learners systematically, at least with regard to L3 learners. Consequently, new questions began to emerge organically, such as the role that having more than one previously acquired system has on subsequent acquisition/processing or how this influence is selected among choices. At the time of writing this book in 2017–2018, gone are the days in which no one questioned linguistic-experience inclusion criteria in L2 acquisition. We now know that whether or not a target nonnative language is chronologically a second or later language matters a great deal for morphosyntax in the L3 initial stages and throughout L3 development. While we do not yet

understand all the variables that contribute to the following statement's veracity, the datasets available from over 15 years of dedicated L3 research – which we will review during the course of this book – clearly show that variables conspire such that the course of learning L3 morphosyntax is altered by the cumulative experience of having acquired not one but at least two previous languages.

As this book is primarily concerned with understanding the selection and subsequent effects of morphosyntactic transfer in the earliest stages of L3 acquisition, it is prudent to highlight from the outset that we take linguistic transfer to be at the level of mental representation of the developing grammar (that is, in terms of competence). This means that transfer differs in nontrivial ways from other subcases of crosslinguistic influence, which sit at the level of performance – real-time language use – even if true transfer and nonrepresentational instances of crosslinguistic influence can show exactly the same surface effect at times. Crosslinguistic influence is thus taken to include both representational (transfer) and nonrepresentational influence that manifests as in-the-moment bleeding over from another language at the level of performance/production. Thus, while transfer is a subtype of crosslinguistic influence, it should be distinguished from other types that map onto more superficial influences. The importance of this distinction is discussed and defended in much greater detail in Section 1.4. Moreover, this book will contextualize all the variables that pertain to research of this type by reviewing as much formal linguistic empirical work as is available on the topic of morphosyntactic L3/L*n* transfer.

The writing of this book is timely precisely because we have achieved a critical mass of data across an impressive cohort of L1→L2→L3 language pairings in recent years. Indeed, it is time to combine all this research in order to understand what a bird's-eye view of the available data tells us, while the relative youth of the field makes it possible for us to address all or a majority thereof. As homage to this nascent field, this book attempts to accomplish the following:

(a) to contextualize, situate and provide a critical review of the study of adult L3 morphosyntax as it exists;
(b) to challenge some of the current theorizing while making suggestions for standardizing terms and empirical practices;
(c) to provide a research synthesis of as many studies as were available at the time of writing this book; and
(d) to make some suggestions regarding where we think the field is going and/or should go.

1.1 Setting the Stage

What does it mean to be multilingual? *Multi-* derives from the Latin word *multus*, meaning much or many. For some, *multi-* refers to any number greater than one. Under such a view, anyone who speaks more than a single language is multilingual, including all types of native and sequential (nonnative) bilinguals. For others, *multi-* minimally denotes more than two. According to this view, one can only be considered multilingual if one is at least a native or sequential trilingual. This book will argue that – despite the same qualitative underlying (mental) mechanisms driving language acquisition and processing in all scenarios irrespective of age (see de Bot & Jaensch, 2015; Rothman, 2013, 2015) – the acquisition of a second and a third language are, on the whole, destined to present differently by the very nature of differences in the variables that contribute to them.

For the moment, however, to drive home an important point from the beginning, let us (over)simplify the world by defining people according to two macro-linguistic categories of monolinguals and nonmonolinguals, whereby the latter – anyone who is not a monolingual – is a subtype of multilingual. Based on this definition, what do you suppose the incidence of multilingualism in the world to be? The answer to this question might well surprise you. If you were to stop a random person on the streets of Cedar Rapids (Iowa, USA), Taiki (Japan), Henley-on-Thames (UK) or Jaén (Spain), it is highly likely that this person's guess would undershoot the reality of global multilingualism significantly. Were you to ask this same question to someone in Luxembourg City (Luxembourg), Barcelona (Spain), New Delhi (India), Tromsø (Norway) or Nairobi (Kenya), the answer might overshoot reality significantly. Why might it be the case that a typical British and Luxembourgish response would differ in this way?

Most estimates place global monolingualism at around 40%, which means that roughly 60% of the world's population consists of people who can be qualified as speakers of at least two languages (e.g., Ansaldo, Marcotte, Scherer, & Raboyeau, 2008; Grosjean, 1989; Potowski & Rothman, 2008; Romaine, 1995). Despite there being a verifiably accurate answer to the above question, the context/environment in which the people who are asked live is likely to influence the response. Although multilinguals outnumber monolinguals worldwide, there are few places in which the actual global distribution is true of local or even national contexts. Global percentages are averaged across groups of people; the actual incidence of monolingualism and multilingualism is not distributed evenly at most local levels. Therefore, it is

not usually the case that 60% of any given subset population is multilingual, despite it being true that roughly 60% of the superset (the world's) population is multilingual. Let us take the European Union (EU) as an example, bearing in mind the generally positive view of bi-/multilingualism that thrives in this region. In fact, according to the 2012 *Eurobarometer Survey on Europeans and their Languages*:

(a) 88% think that knowing languages other than their mother tongue is very useful.
(b) 98% say mastering foreign languages will benefit their children.
(c) 72% agree with the EU goal of at least two foreign languages for everyone.
(d) 77% say that improving language skills should be a policy priority.

As discussed by Marian and Shook (2012), the EU reported having 56% bilingualism in 2006 across its member states.[1] However, countries such as the UK are reported to have less than 20%, whereas countries such as Luxembourg, the Netherlands and Sweden report over 90%. While it can be said, then, that the arbitrary borders that encompass the EU as a whole more or less reflect what is believed to be the global distribution of multilingualism and monolingualism, this is only true for the average, not for the majority of individual member states. Nevertheless, what is true of the world as a whole and increasingly of more subset populations is that multilingualism dominates as the default case for linguistic knowledge.

Although much of the world has been multilingual for centuries, if not millennia, multilingualism in what have been functionally monolingual environments in contemporary terms, such as the United States, is sharply on the rise. Of course, multilingualism is clearly not a new phenomenon in such environments, where monolingualism is, in some sense, induced artificially by educational policies, the introduction of national languages, the status quo of default hegemonies (financial and others) and so on. Nevertheless, what is true of these societies compared to bona fide bi-/multilingualism is that the landscape of language distribution and function is de facto monolingual in a majority of policies, allowing for pockets of difference from this default state of affairs. A 2013 United States census report indicated that the number of people over the age of five who spoke a language other than English at home increased from 23,060,040 to 59,542,596, or by 158.2%, between 1980 and 2010. To put this increase into perspective, it is useful to know that, during the same period, the number of people over the age of five who spoke only English at home increased from 187,187,415 to 229,673,150, or only by 22.7%. In

a subsequent United States census report focusing on the largest 15 metropolitan areas (by population) in 2015, 10 cities reported that at least a quarter of people aged five or older spoke a language other than English at home, while six cities reported that this was the case for at least a third of the population, and two reported that more than half of the demographic did so (New York 38%, Los Angeles 54%, Chicago 29%, Dallas 30%, Houston 37%, Washington DC 26%, Miami 51%, San Francisco 40%, Riverside 40% and Phoenix 26%). Although a handful of languages, such as Spanish and Vietnamese, constitute the vast majority of the "other" language category, roughly 350 languages contribute to this category of a language other than English. In New York City alone, for example, 192 different languages are reported as heritage languages that are spoken at home. The growth in bilingualism in the United States since only the 1980s is just one example of the consequences of increased globalization that has defined the greater part of the past 50 years or so. The distribution of the roughly 20% of natural bilinguals in the United States as a whole also reflects the global reality of actual distribution, at least in societies that were traditionally considered to be monolingual, whereas metropolitan areas have tended to be more linguistically diverse and thus disproportionate epicenters of multilingualism.

Even in traditionally monolingual environments, the economic, social, linguistic, and cognitive values of bilingualism are reinforced by global migration patterns and the changing faces of internationalization and global markets. In all environments, particularly in those that are traditionally monolingual, multilingualism is often an additive process. That is, more people today are learners of second, third or more additional foreign languages than ever before. For decades, English has been the default second language of much of Europe and beyond (Jenkins, 2009; 2015). Since a mere fraction of Europe can claim English as a native language, this means that much of Europe's population that speaks English has learned it as a nonnative foreign language. Because competence in English is becoming a default expectation for younger European citizens, it is less often the case that studying English alone as an additional language is deemed sufficient. Increasingly, young people are studying two or more additional languages, both in and outside of environments that are themselves multilingual. Although native English-speaking countries have traditionally lagged behind in terms of promoting learning a foreign language, and particularly with regard to learning multiple foreign languages, in 2014 Scotland legislated its 1+2 language policy, which will be fully implemented in 2021. In its essence, the 1+2 language policy will result in Scottish

children taking two foreign languages throughout the course of their childhood education through, at least, the third year of secondary schooling (roughly 14–15 years old). As can be seen, whether as the byproduct of naturalistic multilingualism or due to the purposeful study of foreign languages in monolingual environments, more people today have competencies in more than one language, sometimes in many more than one.

Linguistics and psychology, to name but two disciplines, have been investigating bilingualism for decades, with a notable increase in the past 20 years (Kroll & Bialystok, 2013), seeking – among other related questions – to understand the extent to which native and nonnative language acquisition and processing are similar and/or different. Understanding this more fully might be one of the best ways to reveal some processes of the mind, particularly how language is mentally represented. Over the past 40 years or so, much research on nonnative, second language acquisition (SLA) has focused on the question of whether an adult mind can acquire and represent language qualitatively in the same way that a child's mind can. Is there a fundamental difference between child and adult language acquisition? The answer to this question is a complex one and will be the subject of the next section of this chapter. Suffice it to say, for now, that there is plenty of evidence – even mere lay observation – to suggest that the processes are different on some level. However, it is not clear that differences in the routes of learning (such as developmental sequences) and ultimate success mean that the mechanisms underlying child native and adult nonnative acquisition are fundamentally distinct. What is clear, however, is that language acquisition is determined partly by previous linguistic experience. In the case of the young monolingual child learning her native language, there is no previous language-specific experience with other languages that can intercede to shape the path of acquisition. Whenever there are opportunities from experience with other languages, there seems to universally be influence from that other language, even in young children. Research has revealed that simultaneous bilingual children (see, e.g., Nicoladis, 2018; Serratrice, 2013) and child second language learners (see Chondrogianni, 2018; Haznedar, 2013) show evidence of crosslinguistic influence from the other language they already know or are in the process of acquiring, depending on age. The fact that adults show more crosslinguistic influence is perhaps not surprising since they have spent more time being monolingual than have children who are learning second languages. In any case, what is clear is that previous linguistic experience is deterministic for the acquisition of subsequent languages, irrespective of age.

It is only very recently that researchers have begun to ask whether or not one should predict differences between second and third language acquisition

a priori, or if the divide is best kept as a difference between native versus nonnative acquisition and/or child versus adult acquisition. In either position, there would be no need to separate the acquisition of a second from a third (or more) language(s), since the second and the third would be equally nonnative and the age of acquisition can be controlled irrespective of the number of languages. As alluded to above, whether by design or not, until the past decade or so, most researchers in L2 acquisition focusing on morphosyntax did not distinguish systematically between true L2 and L3 acquisition, as many so-called L2 studies have included a combination of true L2 learners and multilingual participants. Over the past decade, however, much research has argued and shown that L2 and L3/L*n* acquisition are significantly different processes, particularly with regard to how previous linguistic experience unfolds at the beginning stages and the ensuing impact this has on development over time (see, for discussion, Cenoz, Hufeisen, & Jessner, 2001; De Angelis & Dewaele, 2011; González Alonso & Rothman, 2017a; González Alonso, Rothman, Berndt, Castro, & Westergaard, 2017; Rothman, Cabrelli Amaro, & de Bot, 2013). It is now relatively uncontroversial to claim that L2 and L3/L*n* acquisition are unique processes that are worthy of serious study in their own right. It is important to emphasize from the outset that claiming the processes are distinct at some level merely reflects observation from empirical studies, in that L2 and L3 acquisition under controlled conditions can present differently. The claim, however, is definitely not an evaluative statement regarding any possible extent to which underlying mechanisms involved in one language, say the L2, are distinct from those involved in another, such as the L3. As discussed in Rothman (2013), the null hypothesis is that all acquisition is underlyingly the same and makes use of the same mechanisms. Rothman argued that what appears to be different between L1 and L2 compared to L3/L*n* acquisition would, then, be a reflection not of the internal mechanisms at play but rather of how they interact with external elements which, by definition, are different across all groups. For example, a child L1 learner likely has a hardwired predisposition to avoid redundancies in grammar formation to the same extent as adult nonnative speakers; however, due to the fact that she has not yet had the language-specific experience that an L2 learner has had, and an L3/L*n* learner even more, each of these cases presents differently on the surface in terms of the paths and even the outcomes of development. In fact, there is no shortage of evidence that child L1 acquisition displays hardwired constraints (domain-general and/or domain-specific ones) that delimit the course of language acquisition (Ambridge & Lieven, 2011; Guasti, 2002; Snyder, 2007). Accordingly, observable differences might very well sit at

a superficial level, which is partially explained by the amount and nature of linguistic (and other) experiences that apply to various types of acquisition scenarios in different ways.

For various reasons that will be discussed in detail throughout this book, it is no longer optional or merely cautiously prudent to treat adult L2 and L3 acquisition differently as it relates to scientific inquiry. Moreover, only in multilingualism can one really begin to disentangle the dynamics of previous linguistic influence on subsequent language acquisition/learning/processing, precisely because multilingualism provides the opportunity for influence to come from multiple sources. Determining what is selected and why, specifically in multilingualism, has the potential to tell us much more about the mind and about how language is represented than merely describing the initial interlanguage grammars for L3/L*n* learners.[2] However, the importance of describing and understanding the nature of initial-stage grammars is not to be understated, precisely because describing the initial L3/L*n* interlanguage grammars accurately and effectively delimits the success of developmental and ultimate attainment theories (González Alonso & Rothman, 2017a). The strength of any building is inherently related to the strength of its foundation; similarly, the relative success of developmental theories is partly dependent on their accuracy in describing the initial points of departure of that which they seek to explain.

1.2 Adult Second Language Acquisition: Acquisition Potential and L1 Effects

Before honing in exclusively on L3/L*n* acquisition, it is important that we explain briefly what has been done over the past 40-plus years of research into adult nonnative L2 acquisition. This is crucial for several reasons. There is no denying that the study of L3 acquisition and its theoretical basis emerges from the study of adult L2 acquisition. Moreover, certain facts that originated in the literature on L2 acquisition and have been imported into L3 acquisition studies need to be established to justify how and why the L3 acquisition of morphosyntax is studied the way it is today. Thus, this section provides a nonexhaustive review of the main questions in L2 acquisition studies of morphosyntax as well as the tendencies that can be identified after more than four decades of dedicated research in light of what they bring to bear on L3/L*n* acquisition.

With the exception of children who grow up learning more than two languages from the beginning of their lives, multilingual acquisition occurs after

a period of bilingualism; that is, either simultaneous (2L1) or sequential (child L2 or adult L2) bilinguals acquiring yet another language in childhood or adulthood. Many sequential L3/L*n* learners – in fact, the robust majority of the subjects used in the available L3/L*n* studies to date – were previously adult second language (L2) learners; that is, individuals who were initially monolingual and who then (successfully) acquired an L2 starting after the onset of puberty. Given that we are particularly interested in how previous linguistic systems affect/contribute to the initial mental representations of L3/L*n* interlanguage grammars, what determines the selection of a source (the L1, L2 or both), the timing of transfer (one complete system transfer at the beginning, partial transfer throughout development or somewhere in between) and what the knock-on effects thereof are for L3/L*n* development, it is quite important that we engage with what is known regarding adult L2 acquisition. This is true for several reasons, to which we now turn.

First, although there is still much to investigate and to be revealed, adult L2 acquisition is much more widely studied and better understood than is sequential multilingual acquisition. Since sequential L3 acquisition shares more contextually defining characteristics with adult L2 acquisition than it does with child L1 acquisition in some obvious and not so obvious ways (see Bardel & Falk, 2012; Falk & Bardel, 2011), understanding what is known in the larger, better investigated subfield of adult nonnative acquisition can allow us to consolidate the implications of decades of work and to capitalize on them to avoid pitfalls as this nascent field grows. Crucially, doing so permits us to have an informed point of departure for the creation and testing of L3/L*n* hypotheses. As some insights from decades of studying L2 acquisition/processing are more or less uncontroversial, such insights can be used a priori to shape our initial L3/L*n* predictions. Methodologically, the collective experience of SLA has already highlighted some constraints for testing and/or which methodologies work best for probing adults' initial grammatical hypotheses, interlanguage development and ultimate attainment. Thus, engaging with the L2 literature affords us the opportunity to not have to reinvent the wheel. Observations of differences between the two subcases of language acquisition, however, do not necessarily mean that they are accomplished using or sustained by distinct underlying cognitive mechanisms. In fact, L3/L*n* studies need designed-for-purpose methodologies and independent theories, a point we will stress repeatedly in this book. Nevertheless, it is also likely that there will be behavioral crossover among all instances of adult language acquisition, if reflective of nothing more than the commonality of variables they share as compared to instances of child L1 (such as fully developed domain-general cognition at the

onset of learning, knowledge of a completely developed native system, differences in quantity and quality of input exposure, individual personality traits that affect and/or delimit how we seek out input and what we do with it and so forth).

Knowing what is possible and impossible in terms of grammatical acquisition in adulthood is part and parcel of being able to develop sound theories of multilingual acquisition and processing, particularly with regard to offering meaningful predictions for transfer. If it were truly the case, as some have claimed, that adult L2 learners cannot acquire new morphosyntactic representations for domains in the L2 that differ underlyingly from those in their L1 or do not exist in their L1 (e.g., Bley-Vroman, 1989, 2009; Clahsen & Felser, 2006a, b; Long, 2005, 2007; Meisel, 2011), then one could not expect to see unambiguous transfer of grammatical representations that could only have been acquired during the course of L2 acquisition.

Let us consider the following scenario to drive the above point home. Albert and Vincent met two years ago at university. Albert is from rural Catalonia in the northeastern part of Spain. He speaks Catalan and Spanish as his native languages (exposed to both by native-speaking parents from birth). Vincent is from Seattle, Washington. English is his sole native language. As was the case for Albert with regard to English, Vincent was an exceptionally successful second language learner of Spanish during his teenage years. The new best friends have decided that learning yet another language is important for their future success as businessmen and, since they speak the same languages well, they decide they will enroll in Portuguese classes together. No one would deny that Catalan, Spanish and Portuguese are closely related languages, as all are direct descendants from Latin and are known as modern Romance languages. Accordingly, these languages share many grammatical commonalities that English lacks. One such property is known as grammatical gender. Grammatical gender is an overt classification or a morphological attribution observed in lexical nouns, and must appear in the agreeing elements within a determiner phrase (DP). Gender as an inherent property of the noun is known as *assignment*, and is part of the entry a noun will have in the mental lexicon. The morphological reflection of gender in determiners (articles, demonstratives, quantifiers and so on) is known as *agreement*, which makes sense considering that it denotes agreement with the inherent, lexical gender of the noun they modify. Therefore, while nouns such as *el cuchillo* 'the knife' and *la cuchara* 'the spoon' are arbitrarily assigned masculine and feminine gender respectively,[3] adjectives such as *sucio* 'dirty' have no gender per se, but do change their forms to reflect the gender of the noun they modify, as can be seen