The Exploration
of Multilingualism

Edited by
Larissa Aronin
Britta Hufeisen

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Volume 6

The Exploration of Multilingualism. Development of research on L3, multilingualism and multiple language acquisition
Edited by Larissa Aronin and Britta Hufeisen

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Development of research on L3, multilingualism and multiple language acquisition

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Acknowledgements

On the genesis and development of L3 research, multilingualism and multiple language acquisition

About this book

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Although the regions where people used multiple languages were known from the earliest years of humankind, in recent times multilingualism transpires as a phenomenon whose nature is to be investigated afresh and on its own terms.

Unlike the numerous plurilingual locations, populations, and individuals in the past, those cumulatively featuring current multilingualism came into the spotlight as a distinctive linguistic dispensation. Compared to the previous patterns of use and acquisition of two and more languages, it is manifested in different manner, to a different extent, and more importantly, is crucially integral to the construction of the contemporary globalized reality (Aronin and Singleton 2008).

This book is manifestly about multilingualism rather than bilingualism although the latter is very often included in the concept of multilingualism as its specific case. Our stand is that multilingualism subsumes bilingualism. The issue of distinction between bilingualism and multilingualism is given considerable attention in this volume.

In recent times both the awareness of multilingualism and research in this area have become increasingly conspicuous. A significant amount of books that look deeper into various aspects of contemporary multilingualism and third language acquisition have appeared. De Angelis (2007) on third or additional language acquisition, Jessner (2006) on language awareness, Ringbom (2007) on cross-linguistic similarity in foreign language learning, Cenoz (2009) on multilingual education, Lasagabaster and Huguet (2006) on language attitudes and use of multiple languages in European context and the Handbook of Multilingualism and Multilingual Communication by Auer and Li Wei (2007) are some of the recent and the more prominent ones.

This book adopts a more synthesized view on the topic. The need for such a perspective is warranted by what can be called the 'coming of age' of trilingualism research. Indeed the field has reached a point whereby it stands in need of arriving at an overarching framework. The distinctive feature of this book is its ontogenetic perspective on research on L3, multilingualism and multiple languages acquisition. Along with factual and historical material from previous and current decades of research, it includes main theories, prominent researchers and important research trends, into its purview.

The reader will not find the contents arranged in a neat chronology, but rather is presented with state-of-the-art accounts of several prominent aspects of multilingualism. Taken together, the contributions by prominent and committed scholars in the field, each from a different angle, allow the reader to identify the milestones in the development of multilingualism and L3 research.

In the following section of this chapter, we are going to look very briefly into the genesis and development of L3 research, multilingualism and multiple language acquisition (for a comprehensive discussion see Jessner 2008) which eventually led to the establishment of the International Association of Multilingualism (2003) and "The International Journal of Multilingualism" (2004).

Early researchers of multilingualism and multiple language acquisition such as Braun (1937) or Vildomec (1963) did not yet study the phenomenon systematically but they identified it as a field of study in its own right. They were also the only ones who did not concentrate only on the negative side of the existence of multiple languages in the learners' repertoires, but emphasised the positive effects of being multilingual, such as enjoying a broader knowledge about cultures. Wandruszka published many books and articles (one of the earliest in 1979) about the inherent multilingualism in each learner and referred to variants such as dialects, variants in different situations and with different communication partners (he did not yet call these varieties ideolects or sociolects). He concentrated on the metaphor of languages in contact referring to the contact of languages within each learner.

Researchers such as Oksaar (1977) were the first ones to describe – almost in passing – their own children's progress in acquiring three languages simultaneously. Others such as Hoffmann (1985), Hélot (1998), Barron-Hauwaert (2000), Dewaele (2000), Gatto (2000) or Barnes (2006) followed much later.

Consolidation of research began in the late 80s and early 90s of the twentieth century when there was further concentration on studies which involved more than the traditional two languages in one person. Researchers insisted that bilingualism is more than the sum of two monolingualisms, and that tri- and multilingualism is more than L2 plus yet another language. They tried to bring together research results of bilingualism studies and SLA studies on the

one hand, and to apply these results to questions of multilingualism and multiple language acquisition and learning on the other.

As L3-researchers seldom really felt at home at SLA-meetings where research in multilingualism and multiple language acquisition and learning was regarded as a mere sub-form of SLA, they started to organize their own meetings and organisations. In the framework of the German Association of Applied Linguistics, Britta Hufeisen organized L3-workshops on a regular basis between 1992 and 1997 (Hufeisen 1993, 1995, 1996, 1997, 1998). In 1998, Ulrike Jessner happened to participate in the workshop, and together with Jasone Cenoz they decided to organize a conference on an international scale. This took place in Innsbruck in Austria with as many as 120 participants at the first L3-conference. More L3-conferences were to follow, namely

> 2001   in Leuwaarden, Netherlands, organized by Jehannes Ytsma,
> 2003   in Tralee, Ireland, organized by Muiris Ó Laoire,
> 2005   in Freiburg, Switzerland, organized by Claudine Brohy
>   and Christine Le Pape Racine,
> 2007   in Stirling, Scotland, organized by Charlotte Kemp.

Parallel to the founding of a conference tradition, successful attempts were undertaken to establish an association for interested researchers in all fields connected to multilingualism and multiple language acquisition and learning. Consequently, in 2003 the *International Association of Multilingualism* was founded (http://www.daf.tu-darmstadt.de/l3.). The founding members are Britta Hufeisen, Jasone Cenoz, Ulrike Jessner, Muiris Ó Laoire, Larissa Aronin, Patricia Bayona, Gessica De Angelis, Jean-Marc Dewaele, Peter Ecke.

In 2004, Jasone Cenoz and Ulrike Jessner launched the *International Journal of Multilingualism*, published with Multilingual Matters, Avon, UK. Reviewed publications in this journal are about multilingualism, however the publication language is exclusively English. Therefore, in 2005, through the launch of *Multilingualism and Multiple Language Learning* a multilingual book series, with Schneider publishing company, situated in Hohengehren, Germany, was established. In 2008 the first quadrolingual publication – selected papers from the 2005 conference in Freiburg, Switzerland – was published (Gibson, Hufeisen and Personne 2008).

The main strands in multilingualism seem to be situated in the framework of the following research domains:

– sociolinguistics (cf. Cenoz and Genesee 1998, Cenoz and Jessner 2000, Hoffmann and Ytsma 2004) with subgroups in societal areas (cf. Aronin and Ò Laoire 2004, Cenoz 2005) and individual multilingualism (cf. Dewaele 2004),

–   psycholinguistics (cf. Herdina and Jessner 2002, Jessner 2006, Hammarberg 2001, Ringbom 2007),
–   neurolinguistics (cf. Franceschini 1996; Franceschini, Zappatore, and Nitsch 2003),
–   pragmalinguistics (cf. Franceschini 2000, Safont Jordà 2005),
–   applied linguistics (cf. Hufeisen and Marx 2007, Meißner 2004),
–   teaching/instructing/learning (cf. Cenoz, Hufeisen and Jessner 2001, Ó Laoire 2006),
–   applications to the concrete learning events with initiatives such as CLIL, immersion, and the common curriculum (cf. Hufeisen 2007, Hufeisen and Lutjeharms 2005).

Future challenges entail questions about how to deal adequately with the number of variables, the complexity of sciences and the relevance for life in education, morals, religion, politics, interpersonal relations, globalisation, and business. Thus it seems consequential to think about the current situation and describe it alongside the above-mentioned developments. It seems logical that research in societal and individual multilingualism takes place mainly in countries with more than one official language and/or in countries which have heavy immigration rates. Research in multiple language acquisition and learning happens in countries which have established the learning of languages in their school curricula. The articles of this volume also draw on the data collected from various parts of the globe and therefore the implications are wide.

Chapter 2, *Defining multilingualism,* written by Charlotte Kemp, is devoted to methodical examination of terms and definitions referring to multilingualism and related concepts. As the amount of data, both of practical and theoretical kind, is approaching the critical level, elevating multilingualism to a fully-fledged field of its own, research into multilingualism stands in need of agreement on the use of its major terms and concepts. In her article Kemp explores the diversity of definitions originating from different research traditions, ideologies, purposes and contexts of investigating multilingualism. Current debates held with the purpose of enhancing understanding by delineating the terms 'bilingualism', 'multilingualism' and 'bilingual', 'multilingual' individuals. The questions such as 'What is a language?' 'How may languages be counted?', and also what degree of proficiency and of functional capability is required for an individual to be considered bilingual or multilingual, are central. Kemp concludes that as more differences between bilinguals and multilinguals are uncovered by research, there is less basis to consider bilingualism and multilingualism differing solely in the number of languages. Accordingly most researchers refer to individuals who use two languages as 'bilinguals' and to those who use three and more languages as 'multilinguals'.

In Chapter 3, *Genesis and development of research in multilingualism: perspectives for future research,* Rita Franceschini unfolds the discussion on the genesis and development of research in multilingualism. Her arguments are organised around the key concepts of *diversity, the historical foundation of multilingualism* and *cultural sensitivity*. Franceschini advocates a change in the perspective on multilingualism, the grounds for which are laid by a reinterpretation of linguistic diversity, a differentiated approach and development of awareness of the complexity of multilingual social and learning environments. The change is particularly perceptible in the field of language learning where systemic comprehensive approaches, which consider family, cultural and learning contexts jointly, took over the 'monocausal' treatments of the multilingual situations.

The author suggests several perspectives for future studies in areas which have already been researched, as well as in others which need further research. Among them are receptive multilingualism, multilingualism on the Internet, 'language and power', the static basis and legal status of multilingualism.

In Chapter 4, *The development of psycholinguistic research in crosslinguistic influence,* Gessica de Angelis and Jean-Marc Dewaele trace the development of psycholinguistic research on cross-linguistic influence from the 1950s to the present day. The authors show the gradual breaking off from the tradition of seeing language transfer as a phenomenon mostly concerned with two languages. Over the years the focus of interest in the domain of cross-linguistic influence (CLI) shifted from the transfer phenomena from the L1 to the L2 to the non-native languages transfer. While in the 1950s and 1960s studies on language transfer from non-native languages were practically nil, the beginning of the present century is marked by the intense debate on the uniqueness of the trilingualism research and a remarkable increase in the number of studies on multilingualism and CLI. The psycholinguistic research on crosslinguistic influence is clearly no longer confined to traditional perspectives initially developed for second languages.

The branching out of this new field of investigation – non-native cross-linguistic influence – was accompanied by emergence of novel additional issues specific to multilingual, but not bilingual phenomena. The issues of prior knowledge of bilinguals in the process of learning subsequent languages have begun to be investigated from various angles and it seems they will remain central to future research too.

Chapter 5, written by Muiris Ó Laoire and David Singleton, deals with *The role of prior knowledge in L3 learning and use: further evidence of psychotypological dimensions.* Recent research points to the age factor, the level of proficiency, level of metalinguistic awareness and the degree of formality of the context of language use as to relevant determinants of the success in learning the third language. Ó Laoire and Singleton discuss the two critical factors of crosslinguistic influence

which stand in urgent need of exploration – psychotypology, that is, the perceived distance between the languages, and the "L2 factor" i.e. perceiving a language as 'foreign' non-native to the learner. The authors direct the attention of the reader to the conditions and ways in which prior experience and knowledge of an additional language might influence subsequent acquisition processes. Making use of the empirical data from their own research in Ireland, Ó Laoire and Singleton look into the nature of cross-linguistic influence in the speakers/learners of third languages by analysing two studies which involved several groups of third language learners. The findings on Irish-English bilinguals and Anglophones with Irish, who were learning French and German as their tertiary language allowed the authors to suggest that the learners tend to draw from the language they perceive as typologically closer to the target language.

One of the aims of Chapter 6, *Methods of research in multilingualism studies: reaching a comprehensive perspective,* written by Larissa Aronin and Britta Hufeisen, is to demonstrate the wide variety of methods and approaches available to students of multilingualism. The new linguistic dispensation, the current multilingualism, calls for reconsideration of the use of methods in multilingualism studies. The contribution includes a discussion of the inherent properties of contemporary multilingualism identified as *complexity, liminality* and s*uffusiveness.* These necessitate additional apposite methods for multilingualism research. Special attention is given to emerging and promising methods of research which especially fit the specific nature of multilingualism studies. Among them are methods of complexity science, as well as the use of metaphors and conceptualization serving as methods of research. The authors argue in favour of introducing a full range of contemporary scientific research methods from other scientific domains, combining them with existing theories and methods of linguistic and sociolinguistic investigation.

In Chapter 7, *The study of multilingualism in educational contexts,* Jasone Cenoz and Ulrike Jessner provide a systematic overview of international research on multilingual education, as distinct from the research into bilingual education. Multilingual education "is defined by the use of languages other than the L1s as media of instruction (despite the languages which are taught as school subjects) with the aim for communicative proficiency in more than two languages". Although third language acquisition (TLA) in the formal context shares a number of essential characteristics with second language learning in school, TLA is grounded in second language learning as it depends on the degree of bilingualism of the third language learner. The authors concentrate their attention on socio- and psycholinguistic aspects of multilingual learning.

A special focus is placed on the issue of the optimal age for starting of second/foreign language learning. In particular, the data from the new research project

on the effect of age on third language acquisition carried out in the Basque country do not support the assumption that the provision of a few hours of English class for the pre-primary age children leads to a higher level of proficiency in this language. The results of this and other studies carried out in the schools of Catalonia and Basque Country provide an insight for dealing with a predicament in decision making on the best age to start learning a second or foreign language.

Peter Ecke, author of Chapter 8, *Multilingualism resources: associations, journals, book series, bibliographies and conference lists,* supplies helpful information for the collaboration and consolidation of partnerships between researchers of related disciplines and between researchers and practitioners devoted to bi/multilingualism worldwide. His contribution includes reviews of resources for multilingualism research and practice with the aim of assisting researchers working in the field of bi/multilingualism to cope with an immense increase in research and publication in the field. Ecke provides data on several kinds of resources: associations, organizations and networks involved in the study and promotion of multilingualism; professional journals and magazines focusing on, or including multilingualism and third language acquisition as an area of interest; bibliographies on multilingualism research and listings of conferences which include the issues of multilingualism and third language acquisition in their purview.

Finally, the updated re-conceptualization of various aspects of multilingualism is summarized in Chapter 9 by Britta Hufeisen and Larissa Aronin.

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Defining multilingualism

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Differing definitions of multilingualism arise on account of two related groups of reasons: those deriving from participants' complex situation with regard to the nature of their use of various languages, and those deriving from researchers' differing backgrounds, ideologies and purposes. Most psycholinguistic researchers define multilingualism as the use of three or more languages, but this entails defining what a language is, which can be problematic. Researchers need to decide on the degree of proficiency and functional capability multilinguals are required to have for a language to count in their study, and weigh up the implications of psycholinguistic (e.g., mutual intelligibility and psychotypological perception), cultural, political, and affective criteria, together with literacy. Researchers should specify what they mean by 'multilingual'.

Keywords: definitions of multilingualism, bilingual, multilingual

Introduction

Multilingualism has long been of interest to researchers (e.g., Weinreich 1953; Vildomec 1963) but for the most part research has been focused on sociolinguistic studies and few learner or psycholinguistic studies have been carried out in the area until lately (cf. Ramsay 1980; Nation and McLaughlin 1986; Klein 1995). However, the recent growth of research into multilingualism has expanded into many new areas in the last ten years (see this volume, passim) and a critical mass of information and experience in research techniques is beginning to be built across this complex field. The growth appears to be leading to changes consistent with the field becoming a new discipline. One of the characteristics of emerging disciplines is that terms and definitions undergo a process of specification, refinement and

agreement resulting in a convergence of usage of terms. Research into multilingualism now appears to be undergoing this process, which is necessary as definitions are fundamental for theory and have implications for choice of participants, research methodology, and consequently, research findings.

The problem of researchers working on different topics and within different traditions of multilingual research using different definitions of multilingualism is long-standing. As far back as 1953, Weinreich (1953: 113) concludes that this is a problem for theory and for methodology in multilingual research as "no two studies are thoroughly comparable, because the linguistic techniques employed and the sociological orientations, if any, on which they are based have been so different from one case to the next" (Weinreich 1953: 115). The purpose of this chapter is to explore different definitions of multilingualism and related terms, and the implications of these differing definitions for multilingual research, in order to promote discussion of definition of terms within the emerging discipline. The discussion is relevant for both qualitative and quantitative research, with the issue of how to count languages particularly important for quantitative methodologies where multilinguals' number of languages is a variable.

Origins of divergence in defining multilingualism

The unifying focus in research into multilingualism is an interest in individuals and communities that use a number of languages – which appears to be a simple point of convergence around which the field can cohere. However, researchers diverge in their definitions of multilingualism, and there appear to be two related groups of reasons underlying this: firstly, reasons deriving from participants' complex situation with regard to the nature of their use of various languages; and secondly, reasons deriving from researchers' differing backgrounds, ideologies, and purposes. These two areas of divergence interact to form a complex mesh of similarity and difference across definitions.

Above all, complexity is a characteristic of the nature of multilingual participants' use of their languages, which is often in contexts showing linguistic and cultural pluralism (for psycholinguistic complexity see Cenoz 2000 and Herdina and Jessner 2002; for sociolinguistic complexity see Aronin and Singleton 2008; Aronin and Hufeisen this volume). Multilinguals may use a number of languages on account of many different social, cultural and economic reasons. They may live in a multilingual community, or overlapping bilingual communities, or be in contact with several monolingual communities. Their proficiency in each of their languages is likely to differ, and may fluctuate over time (Herdina and Jessner 2002). Their languages may have different roles and functions, they may use them

separately or codeswitch, and they are still described as multilingual whether they know three or seven languages. The extent to which researchers attempt to capture this complexity in the definition of multilingualism they use for their research or to simplify it in order to investigate a particular aspect affects their methodology and research findings.

In addition, researchers are informed by having different backgrounds and different views from various research traditions such as linguistic, sociolinguistic, psycholinguistic, sociopsychological, and educational traditions. Under post-structuralist interpretations not only participants but also researchers are affected by their own developing and changing ideologies of multilingualism as they interact with the social and cultural contexts relevant to them. These ideologies influence participants in how they respond to researchers, and researchers in how they choose participants and methodologies, and interpret the data. Researchers' differing purposes in studying multilingualism mean that they investigate different research questions or hypotheses and use different methodologies to analyse the data. Discussion of definitions of multilingualism is therefore also complex. The complexity of multilinguals' sociolinguistic situation and therefore psycholinguistic development, researchers' and participants' ideologies, and the different purposes of research are reflected in the discussion here and ultimately mean that no simple definitive answers are possible.

Defining terms relevant to multilingualism

To date, researchers have used each of the terms 'monolingual', 'bilingual' and 'multilingual' in a number of ways, as described below. Two noticeable divergences are how many languages they refer to for 'bilingual' and 'multilingual'; and whether each term refers to the language use of both the individual and of communities of individuals in society, or societal use alone.

Defining 'monolingual'

Monolinguals are individuals who use one language and may be proficient at using a number of different varieties of the language together with different registers in the variety or varieties they know, and of switching between varieties and between registers in the appropriate context (but see the discussion of the difficulties in differentiating languages and varieties below). An alternative term occasionally used is 'monoglot'. The term 'unilingual' is often used in the context of language planning (e.g., Tchoungui 2000), but has also been used to

describe participants in psycholinguistic and language learning research (e.g., Ianco-Worrall 1972; Ramsay 1980).

E. Ellis (2006: 175) also presents the term 'monolinguality', the psycholinguistic state of an individual knowing one language, based on Hamers and Blanc's (1989/2000) separation of an individual's 'bilinguality' and societal 'bilingualism'. Many researchers in the French-speaking tradition make this distinction, whereas many researchers in the English-speaking tradition do not. Monolingualism (and monolinguality) is often seen by people in western nation-states as the unmarked case to which bilingualism and multilingualism are compared (Romaine 1989; E. Ellis 2006), even though it is often noted that most people across the world are multilingual (Edwards 1994).

Defining 'bilingual'

'Bilinguals' are often described as persons who use two languages, and bilingualism is 'the ability to speak two languages' or 'the habitual use of two languages colloquially' (Oxford English Dictionary; Fabbro 1999; R. Ellis 1994, and many others).

Although many sociolinguists now use the term 'bilingualism' for both individual and societal use of two languages (Nik Coupland, personal communication), the desire to differentiate between individual and societal use of two languages has given rise to different terms at different times: Hamers and Blanc (1989: 6) are known for distinguishing between the term 'bilingualism' to refer to societies whose communities use two languages, and 'bilinguality' to refer to 'the psychological state of an individual' who knows two languages, though the term 'bilinguality' had already been used in this sense by Weinreich (1953: 67) and Lambert et al. (1968: 484). Fishman (1967: 34) makes a distinction where "…bilingualism is essentially a characterization of individual linguistic behaviour whereas diglossia is a characterization of linguistic organization at the socio-cultural level". In other words, diglossia refers to communities where "…two or more varieties of the same language are used by some speakers under different conditions" usually where one has high prestige and the other low prestige (Ferguson 1959: 325). Although diglossia was originally used to refer to what were understood to be different varieties of the same language (loc.cit.), it has also been used for unrelated languages. Fishman (1967) indicates that he considers language differences to be regarded as a continuum, and uses the term 'extended diglossia' where languages are unrelated, where more recently Hudson (2002: 2) uses the term 'societal bilingualism'. As the distinction between language and variety is often political or cultural, the term 'diglossia' is now often used to refer to situations

where speakers use languages differentially and there is a particular relationship between these related or unrelated languages with regard to their use.

Most researchers in language research use the term 'bilingual' for users of two languages, and 'multilingual' for three or more, but this is not universal. Some definitions of multilingualism do not use a numeric scale but make a binary distinction between monolinguals, who know one language, and multilinguals, who know more than one language (e.g., Saville-Troike 2006). Occasionally this same binary distinction is drawn using the terms 'monolingual' and 'bilingual' with bilingual defined as knowing two *or more* languages (Mackey 1962:27). These definitions assume that there is no meaningful difference between users who can use two communicative codes with two speech communities and users who can communicate with three or more communities (in circumstances where these communities also exist separately). There is some research evidence that there are qualitative and quantitative differences between individuals who use two languages and individuals who use three languages (e.g., Albert and Obler 1978; Nation and McLaughlin 1986) so this usage may be problematic for some researchers.

The terms 'bilinguist' and 'bilingualist', referring to a speaker of two languages, appear in the Oxford English Dictionary but are rarely used now.

Defining 'multilingual'

A multilingual is a person who has "the ability to use three or more languages, either separately or in various degrees of code-mixing. Different languages are used for different purposes, competence in each varying according to such factors as register, occupation, and education" (McArthur 1992:673; see also Edwards 1994; Vildomec 1963). Multilinguals may not have equal proficiency in or control over all the languages they know. The term 'polyglot' is also sometimes used to describe multilingual individuals.

The term 'plurilingual' is used by some researchers, including the Francophone tradition, to indicate individual as opposed to societal multilingualism, and the term 'multilinguality' is used to indicate the state of knowing three or more languages (e.g., Aronin and Ó Laoire 2004).

Polyglossia (or sometimes multiglossia, e.g. Hary 1992) is usually used in sociolinguistics to refer to communities where a number of languages or varieties are used by some or all individuals within a specified community, where they have different roles: more specific reference may be given as diglossia, triglossia, tetraglossia (e.g., Kaye 1994). These terms are less frequently used in psycholinguistic research.

Current debates

Recent emerging research from scientists following educational or psycholinguistic traditions tends to agree that multilingualism is the ability to use three or more languages to some extent, whether these are in the same or different domains. However, defining the term 'multilingual' for any context is problematic, in that each definition is based on the resolution of some interrelated debates which are still active, where researchers' decisions may not be made explicit, and where the decisions affect how the definition is applied to individuals' situation. The most important of these are 'What is a language', and 'How may languages be counted?'

What is a language?

In order to be able to decide if an individual is multilingual, we need to know what a language is. Linguists can define 'language', but defining what 'a language' is, is more problematic (Gupta 2002). From a psycholinguistic perspective, if we view multilinguals' languages as being represented within the individual where cross-linguistic influence is an important part of the dynamic and catalytic system, we see that they are not separable into individual languages. A common alternative approach is to see each language as a group of behaviours which result in utterances produced and received by a community of speakers (this approach only works where there are also monolingual speakers or communities of each language, such as in a European context). People, including researchers, abstract this social construct, reify it, and understand a language as existing in fact, not just as utterances. The 'fact' is much easier to understand and refer to than the complexity of the reality.

There is further complexity, with regard to these utterances, and Strevens (1982: 23) points out that the 'facts' reside elsewhere:

> A central problem of linguistic study is how to reconcile a convenient and necessary fiction with a great mass of inconvenient facts. The fiction is the notion of a "language" – English, Chinese, Navajo, Kashmiri. The facts reside in the mass of diversity exhibited in the actual performance of individuals when they use a given language.

If the existence of 'a language' is fiction, researchers need to be clear and explicit about where they are drawing the boundaries between one language and another in order that others can recognise the fiction as meaningful for the purpose of the study. In practice, for both psycholinguistic and sociolinguistic research, this is often done by specifying boundaries in social or cultural usage. It is worth citing

Ethnologue, which gives information on all the known languages of the world, at length (Gordon 2005, paragraphs 1–4):

> Since languages do not have self-identifying features, what actually constitutes a language must be operationally defined. That is, the definition of language one chooses depends on the purpose one has in identifying a language. Some base their definition on purely linguistic grounds. Others recognize that social, cultural, or political factors must also be taken into account.
>
> Increasingly, scholars are recognizing that languages are not always easily treated as discrete isolatable units with clearly defined boundaries between them. Rather, languages are more often continua of features that extend across both geographic and social space. In addition, there is growing attention being given to the roles or functions that language varieties play within the linguistic ecology of a region or a speech community.
>
> The *Ethnologue* approach to listing and counting languages as though they were discrete, countable units, does not preclude a more dynamic understanding of the linguistic makeup of the countries and regions in which clearly distinct varieties can be distinguished while at the same time recognizing that those languages and their "dialects" exist in a complex set of relationships to each other. Every language is characterized by variation within the speech community that uses it. Those varieties, in turn, are more or less divergent from one another. These divergent varieties are often referred to as dialects. They may be distinct enough to be considered separate languages or sufficiently similar as to be considered merely characteristic of a particular geographic region or social grouping within the speech community.
>
> Not all scholars share the same set of criteria for what constitutes a "language" and what features define a "dialect." The *Ethnologue* applies the following basic criteria:
>
>> Two related varieties are normally considered varieties of the same language if speakers of each variety have inherent understanding of the other variety at a functional level (that is, can understand based on knowledge of their own variety without needing to learn the other variety).
>>
>> Where spoken intelligibility between varieties is marginal, the existence of a common literature or of a common ethnolinguistic identity with a central variety that both understand can be a strong indicator that they should nevertheless be considered varieties of the same language.
>>
>> Where there is enough intelligibility between varieties to enable communication, the existence of well-established distinct ethnolinguistic identities can be a strong indicator that they should nevertheless be considered to be different languages.

There are a number of reasons why these criteria are used in psycholinguistic as well as sociolinguistic research. It is presumed that perceived boundaries in social

or cultural usage have psycholinguistic consequences. (It is better if the boundaries are perceived by the participant rather than the researcher in psycholinguistic research, but it is notable that it is often the psycholinguist who decides what counts as a language). Then, for practical reasons it is easier to use an externalised definition of a language with reference to linguistic features or social use than an internalised definition with reference to mental processing. In other words, even if researchers lay aside the theory that a multilingual's languages function as a holistic and integrated system or repertoire, and view the system as separable into individual languages, it is difficult to assess for each participant where the mental boundaries lie between the languages used. For example, it is often noted that multilinguals may see related languages as effectively the same language. If psychotypological perception affects how multilinguals process related languages, it is possible that they may process related languages as different varieties of the same language, and that processing may differ from individual to individual in this regard. The last criterion used to define a language, mutual intelligibility, is less problematic for psycholinguistic research as it can be understood as internalised as well as psycholinguistic (but see the discussion below).

These criteria can inform researchers studying multilinguals in defining what a language is for their specific purposes. This is a first step in being able to specify what we mean by 'a number of languages' in order to give a definition of multilingualism which is relevant to the research being carried out.

How may languages be counted?

If we regard multilingualism as the use of three or more languages then researchers need to be able to count an individual's languages in order to know whether the potential participant is a member of the category of multilingual individuals. Counting languages is problematic on account of the psycholinguistic problem outlined above; measurement difficulties, particularly with regard to the non-categorical nature of language proficiency and language use; and because the criteria for membership in a speech community are also non-categorical. Some of these problems are described in more detail below (for some of the same issues, with regard to bilingualism, see Skutnabb-Kangas 1984: 80–94).

1.   *What degree of proficiency is required?*
Researchers into multilingualism need to consider to what extent an individual should be able to speak or use each of their languages in order to be considered multilingual for the purposes of the study, and how this is to be measured. Over the last century, the extent to which a speaker is required to be proficient in a

language in order for researchers to count it as one of their languages has diminished (e.g., see Mackey 1962). If we turn to bilingualism, we can compare Bloomfield's (1933: 56) understanding of bilingualism as "the native-like control of two languages" with Haugen's as beginning "at the point where the speaker of one language can produce complete, meaningful utterances in the other language" (Haugen 1953: 7) and Diebold's as any "contact with possible models in a second language, and the ability to use these in the environment of the native language" (Diebold 1961: 111). Mackey (1962: 27) points out that this is because researchers have realised that it is "either arbitrary or impossible to determine" at what stage an individual becomes bilingual.

Recent definitions of multilingualism also do not require individuals to be proficient to native speaker level, not least because nativeness appears to be a function of age of acquisition for many learners, and because researchers working within the more recent multilingual paradigm tend to take a holistic view of all the languages within the individual's system. In other words, each language in the multilingual integrated system is a part of the complete system and not equivalent in representation or processing to the language of a monolingual speaker. Furthermore, because multilinguals' proficiencies in these communicative codes develop and attrite over the course of their lifetimes, testing them at one point in time gives a view of their capabilities at that time only. Self-report assessment for languages should indicate whether current proficiency or general proficiency up to that point in time is required. Other considerations with regard to participants' proficiency include: knowledge of lexical items, grammatical proficiency, pragmatic and stylistic proficiency, pronunciation, and proficiency across each of the four skills: listening, speaking, reading, and writing. Researchers may wish to include or exclude individuals who have only receptive skills or productive skills in a language, or those with only oral proficiency, or those who know classical languages but can only read and write them.

2.   *What degree of functional capability is required?*

Considerations with regard to functional capability include how extensively participants are able to communicate using a language across a number of domains, which particular domains they can communicate in, and whether they are able to codeswitch appropriately for the community they interact with. Code-switching between different languages or different varieties of the same language by multilingual individuals in a multilingual community also makes counting languages difficult for the researcher, and calling it code-switching "presuppose[s] that we can ascribe linguistic features to one external code or another" which is not always the case (Le Page 1998: 71). Multilinguals living in multilingual societies where code-switching is frequently used across their community and who are

functionally capable in a number of languages may not have developed the explicit awareness that other individuals might perceive them to be code-switching between multiple codes, particularly if the codes are related varieties and the multilinguals are not in contact with monolingual communities.

Both proficiency and functional capability are relatively easy to test if standard languages are being assessed, bearing in mind that tests are usually constructed using monolingual rather than multilingual norms and so care is needed to ensure they are appropriate. Testing proficiency in a non-standard language is more difficult as tests do not usually exist if it is not an official language or a medium of instruction, and must therefore be created: tests presuppose that a commonly known standard variety is in use. Additionally, there is the issue of whether any non-standard variety being assessed is the same language or variety as one of the individual's other languages, i.e., the extent to which related varieties diverge functionally in the mind of the multilingual is important in counting languages. As Gordon's (2005) *Ethnologue*, cited above, indicates, the usual criterion is mutual intelligibility between speakers.

3.   *The linguistic criterion of mutual intelligibility*

Conventionally, people speak the same language if they understand each other. However, in countries where a large number of languages are spoken but not taught or used as written languages, such as India, varieties may merge one into another over geographical space and it may not be meaningful to draw artificial lines between them and call them different names. Comrie (1987: 3) refers to this situation as a 'dialect chain', where contiguous varieties are mutually intelligible, but not those further apart. Lynch (1998: 30), referring to the Trukic speech communities of Micronesia, describes how "[d]ifferent linguists have divided this complex continuum into three, seven, and eleven distinct languages, which makes the exercise of counting languages difficult and probably futile." Dirven and Verspoor (1998) suggest that there may be a European dialect continuum from Norwegian by the North Sea to Bavarian in Tyrol. Attempts have been made to count varieties in continua using mathematical means, e.g., Hammarström (2008) who finds it mathematically possible to count an individual's languages, but not to specify what the counted languages are in the dialect chain. The dialect chain is a sociolinguistic phenomenon, but there is a related psycholinguistic phenomenon in individual multilinguals, as the fluidity of boundaries between languages or varieties, and therefore the ways multilinguals categorise them may change over time (Ajit Mohanty, personal communication).

For multilingual participants there is another problem in using mutual intelligibility as a criterion for counting a language as they can often use crosslinguistic transfer to understand related languages to some extent. Use of crosslinguistic

transfer may mean that individuals' functional comprehension of input may not match sociolinguistic language or variety boundaries.

The linguistic criterion of mutual intelligibility is further complicated by asymmetric intelligibility where one individual or community can understand another, but it is not reciprocated. This may occur, for example, when non-standard language users understand and/or use the standard language (through education and exposure through media and the written language) whereas the standard language speakers are less likely to understand the non-standard variety (as they have less exposure, and are less motivated to acquire it as they consider it has less prestige). Complicating this further, mutual intelligibility is a matter of degree rather than a state of either comprehension or incomprehension (Hammarström 2008).

Thought is required by researchers in evaluating whether mutual intelligibility is relevant to their research context: all individuals use non-standard varieties if their mother tongue or one of their languages is not a standard language, and this may have consequences for how researchers count the languages participants use.

4. *Cultural and political criteria*

Moving from psycholinguistic to cultural criteria for membership of a speech community, people generally view others as part of their speech community on account of common social or political characteristics, for example, if they are perceived to share some experience with them, such as a shared culture, world view, or writing system (Smeets 2005). Group membership may fluctuate over time as social identity is shifting and complex. Individuals negotiate their identity within themselves and with the communities they interact with and within, and this includes to what extent and in what ways they identify with individuals and communities who speak their languages. Multilinguals may see being multilingual itself as part of their identity, and may identify with other multilinguals who do not share all the same languages.

Evaluating whether individuals have a common language is made more difficult when speakers of the same language call it by different names, e.g., Dzongkha, Bhutanese, Lhoke, and Bhotia are used for the same language spoken in Bhutan (Edwards 1994: 22). Speakers may not know the name of one of their languages, or the language may change names according to geographical location. What they may consider to be the same language as another speaker may not be considered by the other to be the same language, as individuals' psychotypological perceptions may differ. An understanding of whether interlocutors are speaking the same language is often based on ethnic or cultural commonalities rather than linguistic ones: individuals and groups of speakers may each use their own variety and be understood by the others in the group using different varieties with little perceptual difference if it is not pertinent to the interlocutors. Baker (2006: 133, referring

to Pavlenko 2002) points out that this is because "the psychological is merged into the political". Potential participants may be politically motivated in their beliefs over identity and ethnicity and language as to which language they are using and which culture they consider this to be part of. We do not know whether individuals' psychotypological or political perceptions of their languages affect their organisational representations of these languages in their minds, and if they do, how.

5.   *Other affective criteria*

With regard to affect, researchers should also be careful counting multilinguals' languages under conditions of self-report as variability in measurement may also result from speakers being modest or pessimistic, or alternatively optimistic or showing wishful thinking about their capabilities.

6.   *Literacy*

Counting languages is difficult where participants vary as to their knowledge and ability to read and write. In some societies and communities, literacy is the norm, whereas in others it may be confined to an elite or only used for specific limited functions, and in others, the written language is not used at all. If multilinguals are literate, they may be literate, to some degree, in one of their languages, in two languages (biliterate), or in a number of their languages (multiliterate). Even in Western literate societies, where some languages in addition to the official language are taught or supported at school with regard to literacy, it is unusual for multilinguals to be literate in all their languages. Multilinguals may also be literate in a language or languages they do not have spoken proficiency in. This is likely to be the case where written competence is required with regard to skills for work, but no contact is held with target language communities (or alternatively with the study of classical languages). Research has found that multilinguals who differ in whether they are non-literate, monoliterate, biliterate or multiliterate may perform differently on tests (e.g., Scribner and Cole 1981). Depending on the purpose of the research, it may therefore not be meaningful to mix groups of multilingual participants who differ in their literacy abilities.

The problems in operationalising a definition of multilingualism described above also have consequences with regard to how researchers view the language background data they collect from participants and what methods of analysis they then consider they can use on the data, whether qualitative or quantitative. The complexity of the linguistic reality of multilingualism makes analysis difficult. For quantitative research paradigms, researchers need to be able to split participants into groups on the basis of a chosen attribute, characteristic, or measure of their

language experience in order to be able to compare them. These complexities mean that researchers into multilingualism need to select their participants with care.

Definitions beyond the generic 'multilingual'

The extent to which it is meaningful to lump together all individuals who are able to use three or more languages is now also up for debate. We are discovering that the differences between multilinguals are as great as the differences between monolinguals and bilinguals. There appear to be as many differences between them as there are differences between monolinguals and bilinguals, or bilinguals and trilinguals. Some researchers are careful to separate multilinguals on the basis of how many languages they know (e.g., Dewaele 2004, 2008).

Rather than describing all individuals who speak or use three or more languages as 'multilingual', some researchers specify, according to the definition used, how many languages participants speak or use. Some consistently use either Latin or Greek prefixes to specify the number of languages, but most mix them. If the terms were morphologically consistent in Latin they would be: unilingual, bilingual, trilingual, quadrilingual, quinquelingual (or quintilingual), sextilingual, septilingual, octilingual, nonilingual, and decilingual. If Greek prefixes were affixed to the Latin stem *-lingual* the terms would be: monolingual, dilingual, trilingual, tetralingual, pentalingual, hexalingual, heptalingual, octolingual, nonalingual (or ennealingual), decalingual. However, it seems simpler just to describe how many languages a multilingual uses, according to the definition in use.

Conclusion

Naturally, different researchers and research groups working in different research traditions use different definitions of multilingualism according to their purposes. Defining a phenomenon as complex as multilingualism is problematic in many ways, and necessitates defining what a language is and how languages can be counted with regard to individuals' proficiency, functional capability, and identity. Including a definition of multilingualism in each study benefits researchers in the field because it increases clarity with regard to who is under research in the study, and consequently understanding of how studies are comparable, and in quantitative research, whether a study is generalisable to a specified population. A definition may also be used by researchers themselves to select or screen participants.

As research into multilingualism has been undertaken by researchers working in different research traditions, a number of terms are used to refer to the

same (and different) phenomena within the field. The field would benefit from some common terms. Most researchers now use the term 'bilingual' to refer to individuals who use two languages, and 'multilingual' to refer to individuals who use three or more languages (rather than using the term bilingual to mean more than two languages, or multilingual for users of just two languages). Evidence from research now appears to indicate that the argument that bilingualism and multilingualism are the same ability, but with different numbers of languages, is not necessarily the case. As research proceeds in more depth, substantial differences between bilinguals and multilinguals appear to be emerging, just as differences between multilinguals are emerging.

In the end, it would be useful if researchers were to give a detailed definition of multilingualism as part of each study. Explicit definitions would allow others to understand the principles behind the study, and how each study relates to the existing literature.

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The genesis and development of research in multilingualism

Perspectives for future research

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This contribution focuses on current multilingualism research initiatives, in particular on issues of cultural and linguistic diversity which influence research perspectives and choices. In addition, a new comprehensive definition of multilingualism is posited, one which incorporates the factor of influence at the discursive level and also outlines perspectives of future research. The research desiderata include the historical dimension of multilingualism, comparative studies of linguistic phenomena among minority language users, the exploration of "emergent varieties" especially in young people, "linguae francae", and dialect border areas for "a grammar of language contact". The topics of "receptive multilingualism" and "unintentional, unfocussed learning" are referred to. The chapter calls for intensifying the statistical basis for multilingualism studies and highlights an important role for the representatives of second and third generation migrants in many sociolinguistic areas. Research fields for the analysis of multilingualism in institutions, the media and the economy are also suggested. In conclusion, the need to develop theoretical foundations of multilingualism and systematic and continuous review is underlined, so that independent research can develop.

Keywords: definition of multilingualism, research on multilingualism, language acquisition, minority languages, cultural diversity

Commitment to diversity in European society is now being recognized as one of the key requirements for its successful future development. This commitment comes at a time of increasing acknowledgement that diversity is the key to activating the potential for European growth. It has become obvious that the complex, heterogeneous societies of Europe today can no longer function in linguistically homogenous terms. It is the multilingual competencies of citizens, the embracing of varied communicative skills and abilities which serve as the most appropriate

means of engaging with the new challenges facing Europe's linguistically and culturally complex societies. Current European culture(s) is/are the product/s of a long interactive process of a verbal (and therefore naturally fleeting) nature passed down throughout history. It is also naturally comprised of longer-term cultural phenomena, such as written texts, various media, institutions, talks and discourses held, among others. George Steiner's (Steiner 2005) perspectives underline this process very well. He claims that Europe can be regarded as a personalised, accessible area, where the emphasis is placed upon communication, creativity and autonomy.

In line with such a characterization, which embodies the linguistic and cultural potential of Europe as a multilingually-functioning society, we make the following claims:

1. *Diversity* is a characteristic feature of multilingual societies: In other words, multilingualism in Europe is a potentiality which crucially requires further development, one which will define the area both culturally and economically. With its high level of linguistic and cultural diversity, Europe is able to demonstrate a very special and specific expertise in this area.
2. *The historical foundations* of multilingualism are concrete and measurable. The European cultural arena has been multilingual for centuries in many and varied ways; multilingualism has not simply or suddenly developed just because the research world and public discourse have recently taken an interest in this phenomenon.
3. *Cultural sensitivity* plays a key role in the development and maintenance of a multilingual Europe. Although being and becoming multilingual is a natural phenomenon at the individual level, given the capacity for any speaker to become multilingually proficient, the potential must be developed and enhanced within and by means of social context, by exposure to real speech. A crucial factor in the development of societal multilingualism is therefore a natural, cultural one, in other words, contact with other languages.

The first section of the paper briefly outlines the development of social and scientific interest in multilingualism and closes with a definition of multilingualism. The second section notes some research gaps, and outlines suggestions for future research.

1. Multilingualism in language studies and in social discourse: A change in perspective

The study of multilingual phenomena has established itself as an area of research in language and linguistic studies over the last two decades (see, for example, introductions to the field, including Auer and Wei 2007 or Müller, Kupisch, Schmitz and Cantone 2006, which refer not only to "bilingualism", but explicitly to "multilingualism"). The term *multilingualism* as it is used today denotes various forms of social, institutional and individual usage as well as individual and group competence, plus various contexts of contact and involvement with more than one language. The study of multilingual phenomena includes not just a country's or region's official (national) languages but also regional languages, minority languages, migration languages and – in the broadest sense – language varieties such as dialects.

Thus, the term 'multilingualism' is being used increasingly as a blanket term in the public discourse arena. It is considered to denote various sorts of social and individual forms of language acquisition throughout an individual's lifetime (learning within the family, at school, etc.), as well as the practical use of language varieties in everyday life, at work, in institutions, etc. It is used as an umbrella term in linguistics and covers research on bilingualism and trilingualism, as well as acquisition of further foreign languages.

Therefore, in many respects, "multilingualism" is not so much a completely new area of research as an effort to extend and to embrace multilingual research questions which are being pursued using a range of empirical methodologies. In the field of linguistics, this embrace has led to a change in perspective in the field of language and linguistics to include multilingualism. This inclusion of a multilingual perspective has been undertaken by various linguistic disciplines – primarily sociolinguistics, language acquisition, psycholinguistics and translation theory – all of which in turn feed back into writing on (foreign) language grammars and into language teaching theory and practice.

The main driving forces behind this broader multilingual perspective in language, linguistic and pedagogical fields include:

– increased sensitivity towards socio-cultural diversity (and therefore a movement away from traditional assumptions of homogeneity in society and classrooms);
– the great variety of (socio-)linguistically-based issues and problems at the societal level which have arisen from increased migratory movements (throughout Europe over the last fifty years).

Both of these forces have led linguists and practitioners to reinterpret the phenomenon and rephrase the term 'language diversity' in more positive, beneficial terms. There has also been a softening of the traditional view of historical minority languages. Cultural issues and problems are now considered not as completely different in nature from those of migrants. New combinations of language contact and learning environments are now regarded and investigated using systematic, replicable scientific methods.

This change in perspective towards the value contained in multilingualism at the individual and societal level has been slow in emerging. However, there are hopeful signs within the fields of linguistics, pedagogy and educational policy that monocausal explanations and arguments about minority language growth and contact, and the politics of migrant languages are being relegated to the background. This is particularly apparent in the field of foreign/second language learning and teaching, where comprehensive, systemic approaches now prevail. We can observe an increasing tendency of theorists and researchers to move away from a narrow focus on the individual and his/her competencies alone, moving instead towards a consideration of languages as occurring during interpersonal interaction in communicative environments. Languages are being seen as naturally affected by a complex, variable constellation of influence including cultural context, family context, learning and teaching environment. In linguistic terms, there has been a major shift in focus from the study of one language in artificial isolation to one which reflects the European linguistic reality of the existence and interrelationships of many languages at the same time.

This broadening of focus to encompass multilingualism should not make us forget that, in historical terms, the use of several languages has always been a distinctive characteristic of various societies seeking contact with each other. It would not have been possible in the past to conduct trade, carry out cultural exchanges, conquer rival groups, or manage major institutions without a modicum of multilingual practices. Evidence for such multilingual exchanges is provided, for instance, by the Sumerian documents on language learning practices where learners used clay tablets (see e.g. Titone 1986). We now have access to a first corpus of studies which document multilingual use in the past (see for example the broad reception of Adams 2003). Assumptions of cultural homogeneity and monolingualism in Europe as the norm are now seen as a reductionist approach, one which does not take into consideration the complexity of the multilingual world.

From the outset of research into the learning and teaching of a language, i.e., from the 1960s onwards, multilingualism was treated primarily as a phenomenon of what were then new-style migratory movements (from South to North in Europe), before the general ability of members of societies to communicate in

more than one language was put in the scientific spotlight. This was preceded by sporadic case studies on language development in children raised bilingually (conducted on researchers' own children, as far back as 1913 by Ronjat, subsequently by Leopold in 1949 and Taeschner in 1983), as well as the ground-breaking study *Languages in Contact* by Uriel Weinreich in 1953. Even so, for decades bilingual speakers were largely regarded as linguistic exceptions rather than as the rule. Emphasis in the language lab and in the classroom was placed on seeking out and eliminating the damaging cognitive influences of being bilingual. The success of Grosjean's book *Life with Two Languages* (1982) brought about a fundamental shift in this discussion's polarity, by illustrating that approximately one half of the earth's population can be described as bilingual. His definition of bilingualism was functionally based. In this regard, Europe is far from being the most multilingual area of the world in comparison with the Indian sub-continent or Africa, for example.

At the same time interest started to blossom and has continued to flourish in historical minority languages and linguistic enclaves, their contact and interaction with each other and the dominant languages of the area, and the effects of such contact. This stands in contrast to earlier research which focussed primarily on the retention and loss of the mother tongue or language of origin in isolation (see, e.g., Fase et al. 1992; Fishman 2000). The increasing interest in minority and regional languages, in various forms of language contact, and in modern forms of minority languages, has led to new conceptual, theoretical distinctions and refined descriptions of language contact phenomena. New terms have been introduced, such as (a) *extraterritorial languages*: languages spoken outside their original region, such as Ladino in Bulgaria or Rhaeto-Romance in Zurich, Turkish in Düsseldorf, etc., (b) *heteroglossy*: an umbrella term for all languages which are not majority languages in area region (for example, all of the "heteroglosses" in the territory of the Italian state: Albanian, French, German, Slovenian, etc. and languages spoken by migrants), and (c) *pluricentric languages*, referring to a scenario in which national languages have more than one normative centre (for example, UK and US English and all "Englishes in the world"; Spanish and French are also pluricentric languages). Ammon et al. (2006) and Goebl et al. (1997) provide important reference material which illustrates the canonisation of such concepts and the resulting terminology. It is important to note here the need to systematically classify the highly complex landscape of language groups according to both a vertical (historical) perspective and a horizontal (area-territorial) perspective in order to do justice to the many and varied combinations of multilingualism at the societal and individual level.

Furthermore, it is more important now than ever to take into account recent language group migrations and ever-increasing professional mobility in a world which is becoming more internationalised (Aronin and Singleton 2008).

Children growing up in these contexts exhibit extremely interesting combinations of multilingual skills, which enable these multilingual speakers to forge further personal contacts all over the world and to contribute in this way to the integration of alloglotts.

Today, the potential of multilingual abilities is also being recognised outside of linguistics, not least because it is apparent that being multilingual results in more than just economic benefits to the individual speaker; multilinguals have been shown to exhibit enhanced levels of many cognitive skills (e.g. changes in perspective, empathy, creative thinking; see Lambert's early studies in Canada in the 1970s (Lambert, Tucker and d'Anglejan 1973)).

The process of embracing linguistic diversity can provide the means for historical language minorities and modern migration groups to embrace a more positive view of themselves and outlook for the future, one in which individual multilingual abilities are socially appreciated and integrated as part of everyday life. The creative potential of multilingual speakers and groups can be advantageous for all of society. Such groups are necessarily accustomed to treating their diversity sensibly and sensitively – in cultural, religious and communicative terms. Researchers have observed that it is precisely the peripheral groups of a society which often have the most to contribute in terms of creative potential (see, e.g., Moscovici, Mugny and Van Avermaet 1985; or, in sociolinguistics, Milroy and Milroy 1985; see also Florida 2002).

A paradigm shift in how multilingualism is viewed and treated is also becoming apparent in discourse at the European level; in concrete terms, for example, in the Action Plan 2004–2006: *Promoting Language Learning and Linguistic Diversity* (COM 2003, 449) and in the document *A New Framework Strategy for Multilingualism* (COM 2005, 596) of the European Union European Union (for a critical review see Nelde 2001).[1] At this level, the discourse is currently moving

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1. Further interesting documents on the policy of the Commission and the EU are:

– Council Resolution of 31 March 1995 on improving and diversifying language learning and teaching within the education systems of the European Union (Document 395Y0812(01));
– Council Resolution of 16 December 1997 on early teaching of European Union Languages;
– White Paper on Education and Training – Teaching and Learning (1995, European Commission);
– Recommendations of the European Parliament and of the Council on key competences for lifelong learning (2006/962/EC).

For more details see footnote 2 of the *Final Report of the High Level Group on Multilingualism* (cit. in the bibliography *sub*: Commission of the European Communities 2007). The agenda for multilingualism can be found on Commissioner Orban's website: http://europa.eu80/languages//en/document/99. The author of this paper was member of the High Level Group and responsible for the overview and the recommendations on research on multilingualism.

away from the concept of a monolingual, homogenous society towards a society understood and assumed to be multilingual.

Being considered a multilingual speaker is becoming more and popular, especially among young people. Society is coming to regard the bilingual and multilingual competencies of individuals in a more differentiated and more positive light than used to be the case. In public discourse as well, the demand for 'perfect' or 'ideal' production and comprehension by bilinguals, trilinguals or multilinguals is increasingly being relativised to reflect a definition based upon functional, practical levels of production and comprehension, geared to applied abilities, skills and language use instead of towards theoretical "knowledge", i.e. the awareness of morpho-syntactic rules, for example (see the Common European Framework of Reference and the portfolio movement for curriculum materials reflecting this applied approach: http://www.coe.int/t/dg4/linguistic/CADRE_EN.asp).

Notwithstanding the increasingly predominantly positive attitudes towards multilingualism today, critical viewpoints of the concepts and terms and their place and usefulness as descriptors in society and research need to be adequately addressed. For instance, not every society which claims to be multilingual necessarily produces multilingual individuals. In the cases of Belgium and Switzerland, because of the territorial principle which is based mainly on a separation of the population, the official bi- or multilingual status of the country does not lead automatically to a multilingual repertoire of their inhabitants, as one may have assumed. The many efforts made over the last century to comprehensively overhaul, and systematize, foreign language teaching methodology are impressive. One step that has been taken is to start teaching the "second" and "third" language at an early stage in school, side-by-side with the first language(s). Here we have concrete evidence of attempts to capture the potential of both becoming multilingual and for multilingualism to become a standard communicative tool for pupils in European schools.

2.   A definition of multilingualism

What follows is a definition of multilingualism, intended to be dynamic in nature and to reflect a cultural foundation. It may be expressed as follows:

> *The term/concept of multilingualism is to be understood as the capacity of societies, institutions, groups and individuals to engage on a regular basis in space and time with more than one language in everyday life.*

> *Multilingualism is a product of the fundamental human ability to communicate in a number of languages. Operational distinctions may then be drawn between social, institutional, discursive and individual multilingualism.*
> *The term multilingualism is used to designate a phenomenon embedded in the cultural habits of a specific group, which are characterised by significant inter- and intra-cultural sensitivity.*

A few comments are necessary here. The term *language* is used here in a neutral sense as a language variety which a group allocates to itself for use as a habitual and time-stable code of communication. The term 'multilingualism' can refer to several language varieties, as well as to (regional) languages and dialects and sign languages. In this sense, the concept of language is closely tied to definitions of self and group identity. It is also important to note that a group (or an institution, a society) can assign more than one language variety to itself.

The establishment and addition of the concept and therefore the term *discursive multilingualism* to the traditional listing of social, institutional, and individual levels of analysis stems from the recent growing emphasis on the analysis of interaction data. For example, any analysis of how several languages are being employed in everyday interactions cannot treat the two interlocutors as two individual, separate speakers at the level of discourse. In order to do justice to the mutual construction of meaning and understanding in everyday speech, interactional phenomena such as these must receive specific consideration and scientific treatment as such.

The term *cultural sensitivity* is an umbrella expression which pertains to the high degree of dependence that multilingualism has on cultural circumstances. Besides the socio-historical and individual-biographical background of the speakers involved, this term also encompasses the existing power relationships within a given society.

Another requirement for an adequate scientific analysis of multilingualism is to make clear how it differs from bilingualism. On the one hand, many previous studies conducted under the heading of multilingualism actually deal with bilingualism. On the other hand, many older studies need revisiting to establish whether they were, in fact, concerned with trilingual speakers, while employing the term *bilingualism*. There have been many cases in which researchers focused on the two languages in question and simply did not ask the study participants about the possible existence of other languages in their individual repertoires. Neither has the significant role of dialects (not in an Anglo-Saxon sociolinguistic sense, but neutrally as language varieties) always been taken into consideration as part of the multilingual repertoire of an individual.

Unfortunately, an awareness and understanding that multilingualism is a separate phenomenon in its own right and not equivalent to bilingualism is not yet very widely disseminated. One promising and productive exception to this lack of awareness comes from specific research in the field of third languages and tertiary languages, which has become an established research area (see e.g. Cenoz and Genesee 2001; Cenoz and Gorter 2005; Cenoz, Hufeisen and Jessner 2001; De Angelis 2007; Dentler, Hufeisen and Lindemann 2000; Hufeisen and Lindemann 1998; Hoffman and Ytsma 2004 and the recently launched *International Journal of Multilingualism*).

If scientific justice is to be done to the term multilingualism, it must be backed up with specific, systematic empirical and theoretical evidence; otherwise, it is in danger of dwindling into little more than a trendy shell of a word, understood or misunderstood differently by anyone and everyone.

3.   Perspectives for future research

In this section, I would like to discuss various avenues of investigation which are currently well-placed to be expanded upon to include this new perspective on multilingualism. Given this future-oriented perspective, the following section will not concentrate on listing past research, or any kind of general overview of the field. My intention therefore is to indicate and encourage potential future research paths, however also keeping in mind that a number of such investigations are already underway.[2]

The following list includes fields, sub-fields and issues which remain currently underexplored:

– the historical dimension and roots of multilingualism, investigating and revisiting linguistic situations/constellations investigated in the past;

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2.   In other words: it is impossible to do justice to all work done so far; thus, the references are selective and exclusively point to the past. It is evident that in the majority of cases in which further investigation should be encouraged, as proposed here, precursory work has been done, but is perhaps not yet fully visible. The pioneers in these new fields should feel supported by this exposition. I am grateful for discussions and comments to: Jubin Abutalebi, Peter Auer, Gaetano Berruto, Michel Clyne, Silvia Dal Negro, Jeroen Darquennes, Konrad Ehlich, Ivan Kecskes, Wolfgang Klein, Georges Lüdi, Wolfgang Mackiewicz, Roland Marti, Natascha Müller, Jürgen M. Meisel, Peter Nelde, Vincenzo Orioles, Erich Steiner, Rosemarie Tracy, Daniela Veronesi, Gudrun Ziegler. All failures in this 'look at the future of reseach on multilingualism' are only attributable to my incapacity, personal interpretation, and weighting. I presented a first concise version as member of the "High Level Group on Multilingualism" of the European Commission.

–   the interplay between learning and acquisition, linking together factors such as neurobiological bases, cognitive development and interaction in various settings, including guided instruction in second and foreign language learning;
–   unfocussed acquisition, i.e., acquisition through exposure, without an explicitly chosen learning focus, a form of spontaneous acquisition through contact, learning "*en passant*", i.e. incidental learning;
–   the development of multilingual competencies in the age range between 7 and 14 in the contexts of family and school;
–   the long-term effectiveness of early acquisition programs of L2, L3, Ln… in primary schools.

3.1   The history of active multilingualism and multilingual grammars

Historical knowledge of engagement with multilingualism in various past societies is available – albeit somewhat difficult to find. In Europe, this rediscovery of multilingualism in former societies is precisely what seems to have occurred recently, in the drive in Europe to embrace diversity, including linguistic diversity.

3.1.1 It must of course be assumed that linguistic diversity existed in previous centuries. We do not, however, know very much about the concrete approach to such diversity in the past. Studies on ancient societies (e.g. Adams et al. 2002; Adams 2003) illustrate how historic multilingualism may be approached and investigated. For instance, there is currently an upward trend in the number of projects on multilingualism in the Middle Ages and the Renaissance (see e.g. the interdisciplinary wun-project www.wun.ac.uk/multilingualism/index.html). We also have some knowledge, for example, of how many languages were in use in the Habsburg Empire (see e.g. Goebl 1997; Rinaldi et al. 1997). Schlieben-Lange 1983 and Lüdi 1989 have done preliminary work in this area. The field is expanding in many dimensions, considering territories as well as individuals (see e.g. Braunmüller and Ferraresi 2003; Petersilka 2005 on Frederick the Great). Over and above their interest in linguistic issues, studies such as these are inspirational in their illustrating completely different attitudes towards the use of several languages, and in highlighting the close relationship between language, nation (once also known as "patria" and "gens") and personal or social identity. Trying to shed light on and unearth ancient layers of forgotten or hidden history of multilingual practices is a fascinating research topic *per se*, because of the richness of the many different socio-political linguistic and ideologies surrounding the use of multiple languages in the past (also pointed out by Aronin and Singleton 2008). It is a

useful topic as well, because such research can serve to foster a broader positive awareness of the naturalness of multilingual phenomena, as shown by local layers of language use in the past.

Studies which examine linguistic border areas, requiring differentiated, and specific structural knowledge, which is also relevant in any efforts to overcome conflict in linguistic contact zones, would be particularly productive here.

Possible research questions to broaden the research scope in this area might be: Which configurations of multilingualism can we detect in the past? What can we say about social, cultural and individual attitudes toward the multiple use of languages in specific past societies? How were business negotiations conducted? How were family ties created across language boundaries? How did people interact with one another in terms of language and how did people learn these multiple languages? What was the degree of "awareness", if any, of being multilingual?

Another general lack of research exists on forms of writing, speaking and using several languages in everyday life and in institutions in the past. Multilingual practices adopted in previous centuries can be determined by analysing archival documents such as protocols or diaries. Biographies which have already been investigated (see J. W. von Goethe, or Frederick the Great, etc.) could be consulted and explored in a new light – i.e. in terms of the multilingual expertise of prominent members of society.

The major issue of *The History of Multilingualism* constitutes a clear research desideratum. Developing awareness of those concrete multilingual skills that existed in the past and the study of their history and development would also provide a sound academic, empirical foundation for constructing an image of a multilingual territory in Europe with extended socio-political perspectives and historical links.

3.1.2 Another possible approach with a multilingual focus based on contact phenomena – as presented, for example, in Thomason and Kaufman 1988 – might consist of new types of *historical grammatology*. We know, for example, that Europe has always experienced migrations, which have left their linguistic marks (e.g. the Normans in Britain, the Langobards in Italy, the Moors on the Iberian Peninsula, etc.). Contact phenomena between the resident population and the newcomers occurred in both directions. Such an approach would lead to considering the "history of language X *as a* history of language contact". This perspective would entail the examination of a language's development on the basis of those heteroglosses which existed at a specific point in time in the past, along with the linguistic phenomena associated with them at that time.

Finally, initial research in "migration linguistics" is presently proceeding (see Krefeld 2004); however, this area has not yet been examined using a socio-historical lens.

3.1.3 While research into national languages and their grammars has firmly established itself as a research area, the regions of contact and the translinguistic regions between dialects and regional languages, neighbouring languages and their varieties have not yet been investigated systematically or exhaustively using a multilingualism framework. Apart from early studies on *Sprachbund* issues, there is a dearth of systematic work on the linguistic territory in terms of the gradual transition of linguistic features from linguistic variety to variety from one linguistic area to the other. It would now be apposite to examine the issue of the *continuum of varieties*, rather than the distinctions. This would mean considering specifically the shifts in, and bundling of, isoglosses in border regions (for example, the Germany-Luxembourg-Lothringia-France border area, the district of Savoy-Aosta-Piedmont, or the Rumanian-West Slavic contact area). Such detailed inter-regional data would allow us to better understand a polylectal grammar as well as the history of multilingual variety in Europe.

3.1.4 Scant research has been conducted on the link between the long-term effects of multilingual practices and changes in the structures of languages. Although much is known about cross-linguistic influence at a lexical level, i.e. the adoption of loan words, loan inventions, etc., little research has been conducted into cross-linguistic influences at other levels of language (from phraseologies through morphological forms to syntactic structures).

3.1.5 Further research could also be conducted into the mutual intelligibility of lexicons of speakers in neighbouring geographical regions with a view to how they could be of use for *intercomprehension* and *receptive multilingualism* (e.g. ten Thije and Zeevaert 2003). Recent studies on *Europeanisms* are of particular interest in this context (see, e.g., Fusco, Orioles and Parmeggiani 2000) and could easily be further explored.

3.1.6 The social phenomenon of language contact regions and the internal grammatical phenomenon of *Sprachbund* issues together form a dynamic relationship, one I believe is worthy of investigation. Language varieties actually spoken and used in language contact regions offer an ideal opportunity for investigation at the micro-level. In this way the linguistic form of language continua – equivalent to a form of "linguistic quantum physics" – becomes the centre of attention,

thereby relativizing language differences at the macro-level (see models proposed by Herdina and Jessner 2002; Wildgen 1999).

Further interesting research questions might include: What languages are affected to a greater or lesser extent by language contact and at which structural levels? Which elements of a language are more exposed to language contact? Does the proportion of multilingual speakers influence the rate of specific language changes?

3.2 Language borders, minorities and new opportunities for peripheries

In the light of today's increasing global mobility, it is more important than ever to ensure that minority and regional languages are guaranteed protection to ensure their continued survival and further development (see, e.g., the European Language Charter). Sensitivity to and awareness of this problem is at an all-time high: Ten years after the important publication on "Reversing language shift" (Fishman 1991), the reconsideration of this issue in Fishman 2000 illustrates its topicality.

In these times of increasing sensitivity towards cultural/linguistic diversity, various multilingual individuals and groups, once regarded as peripheral, marginal or minority groups or exceptions, are moving to the centre of the political spotlight. They are becoming symbols of multilingual communication in society and bridge-builders for a future plural cultural identity.

A great deal of scope for new research exists in this direction, especially in view of the fact that the documentation base of regional languages and minority languages is quite large (cf. Extra and Gorter 2001 or Extra and Yağmur 2004).

3.2.1 There is still a lack of comparative studies between various regions, evidence which could serve to connect the current situations in the age of globalisation and associated globalisation (i.e. in the sense that Aronin and Singleton 2008 point out). The aim of such research would be to emphasise and describe multiple language use occurring in various language border areas and to disseminate information on creative multilingual interaction in everyday life and in institutional settings.[3] *The ethnography of multilingual communication in language border regions,* with particular emphasis on those practices embedded in the respective communication structures of everyday life, is a research deficiency which must be remedied, by comparing various solutions with one another. One could investigate how speakers deal with several languages at once and how they cope with the difficulties these language choices and priorities sometimes cause

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3. Some research topics in the two large research consortia LINEE and *Dylan* (in the 6th EU Framework Program, form 2006 on), are dealing with this challenge. See http://www.linee.info and http://www.dylan-project.org/Dylan_en/ for further information on the current work.

in language border areas. These are just the locations at which *optimum practices* must be developed. An important step now is to develop these practice variants and invariants from evidence of border language realities. I would like to explore these ideas in more detail in the next section.

3.2.2 The negative side-effects of multilingualism for minorities must not be dismissed: The issue of which steps can or should be taken to prevent minor languages being marginalised still awaits resolution. For minority language speakers, the process of accommodating to the dominant language in the area is a challenge, often invoking anxieties about language loss. Anxieties of this nature should be dealt with in the framework of language acquisition studies, unless one wishes to create an attitude of resistance towards other languages. The topic of *language and emotion* might therefore be a fruitful research area. Early results in this area are provided by the early work of Schumann (1997), more recently researched by Pavlenko (2005, 2006) and Dewaele (see the overview in Dewaele 2007). The next step is to place special emphasis on minority languages, including the investigation of the link to neurobiological correlates, which may help explain the link between language and emotion.

3.2.3 It is also necessary today that minorities move away from a merely defensive attitude towards a conscientious, liberal attitude. It is clear that a language which is practiced openly will survive, whereas sealing a language off from external influences detaches the language from modern developments and renders it unattractive, above all to the younger population. The apparently paradoxical formulation "vitalization by openness" must be instilled in the speaker population, if, for example, even the most minor of languages is to be protected against language death.

All in all, *varied input* is a fundamental requirement both for language acquisition in general and for any form of language maintenance. With regard to minority languages, in particular historical ones, and minor languages, this means:

–   continuing to assist the autochthonous population's acquisition of language competencies (at nursery school and primary school, etc.), and, where necessary, to an extent beyond the norm, so that varied input is maintained at all levels (i.e. family, circles of friends, leisure, school, work, religion, literature, arts and use of media in general);

–   at the attitudinal level, enhancing experiences of language awareness and feelings of positive self-esteem with regard to the use of languages (e.g. by providing examples with real people who may possibly have also made their careers abroad but have continued to use their first language, in literary production, in music, in the media, in sport, etc.);

–   gaining new speakers from other languages, with the objective of ensuring that the non-autochthonous population can be exposed to a varied input of the minority language in order to attain receptive skills in this language and to become part of a common culture of communication.

A particular example of how a minority language can gain new speakers is the situation with Catalan, a regional language in Spain. Due to a particular language policy, according to which all new immigrants, as well as people coming from other parts of the Spanish territory, must learn Catalan, the language is spoken now by an increasing number of non-native speakers.

3.2.4 The above-mentioned measures must be applied in order to ensure that "borders on the ground" do not become "borders in the mind" (Gumperz, personal communication). It is important, above all, to undertake activities linking a number of languages together in order to win over the young generation as the target population for the maintenance of minority languages. Maintaining regional identity does not preclude transnational openness; in fact, the principle of "regional location, international orientation" must be demonstrated (as a correlate hereto: first languages to serve as markers of core identity, second and foreign languages to serve to expand cultural, social, linguistics, political, etc. horizons).

3.2.5 The aim here would be to ensure that, in addition to their native speakers, minority languages acquire additional speakers as L2 speakers who have a functional command of the language, even if they do not become absolutely bilingual. In the long run, this will, for example, eliminate the constant need for minority speakers to make a unidirectional linguistic adaptation to the majority language whenever a speaker of the majority language is present. In order to ensure understanding in such scenarios, emphasis must be placed not upon balanced language competencies for the two communication partners, but rather upon the individual's capacity to understand several languages receptively, although active production capacities need not necessarily be high. This *receptive multilingualism* needs to be investigated further as a possible communication strategy. The Scandinavian region offers favourable conditions for research into receptive multilingualism, for instance. This kind of communication is also possible among the speakers of Romance languages, and – in a different way – among the speakers of Slavic languages or between the speakers of languages of different origins (e.g. Hufeisen and Marx 2004, for an overview see ten Thije and Zeevaert 2003).

3.2.6 There are a number of current investigations on multilingualism on the internet; this research also includes minority languages. New technological

developments, in particular, may create new options for the promotion of minority languages, by increasing their global visibility in media.

3.2.7 To close this discussion, it is important to add that the issue of "language and power" should not be excluded from these studies either, even though it is a politically delicate topic. Although this area is not essentially a linguistic one in the narrower sense, it is not possible to avoid questions relating to *language equality*. Non-interventionist approaches may ultimately lead to a paradox, that is, they may actually help the more powerful force to exercise its advantage to make a breakthrough. How can more ethical principles be implemented? This is an area where more evidence is needed (see also below 3.3.3).

Fruitful research questions in this broad field could include: Which forms of multilingualism are present in different language border regions at the social, institutional, discursive or individual level? Which solutions are preferred for settings involving multilingual communication? Which communicative practices are typically in use? How are they similar; how do they differ? Which factors affect communication across a number of languages in everyday use (in business, by neighbours, in school playgrounds, etc.)? Which practices serve as identity markers and are used, for example, to reflect integration or distance from other language groups, and which of them are free of emotional and identity elements?

As mentioned previously, it is important that a comparative perspective be adopted as a starting point for investigations in this field.

3.3   Multilingualism: its statistical basis and legal status

3.3.1 There is a shortage of comparative language statistics assessing the competencies of those speakers who use various language varieties for everyday purposes. We still know very little about what a map of regions based upon principles of multilingualism would look like. On the basis of national statistics, it should be possible in the future to trace the characteristics of various, specific types of multilingualism according to geographical area. A "map of multilingualism" with various "linguistic-tectonic plates" and layers could illustrate the complexity of the linguistic composition of a particular "language area". My focus here is on the statistical point of view on multilingualism, which is fairly underdeveloped (whereas ethnographic studies are on the increase, as well as linguistic landscape studies, cf. Gorter 2006; Backhaus 2007; Franceschini 2007).

One of the prime objectives for language statistics should therefore be to obtain reliable, detailed and comparable fine-grained language data, to broaden the perspective left by the "Eurobarometer" initiative, for example. The aim here

would be to compile statistics which record the 'multilingual potential' in terms of language users' abilities and skills, through questions about practices in families, with friends, in everyday professional uses. Multiple entries about the language varieties (including dialects) would constitute a measure to identify and to quantify configurations of multiple languages in use.

In this way, we would be able to draw a kind of *map of multilingualism* for any country or region and to monitor its development over time. Cities are certainly areas in which multilingualism is present to a large and differentiated extent, with very specific language repertoires affected strongly by immigration (see for example Extra and Yağmur 2004). Particular attention would also have to be paid to peripheral regions which are "emerging" in terms of multilingualism (e.g., urban belts, language border regions, tourist areas, technology parks, etc.). Not only majority languages would come to the fore; in fact, the entire heterogloss would be recorded. A *multilingualism index* could be used to display peaks and troughs of "linguistic geological" compositions, which would register the levels of multilingualism in an area (cf. the Swiss Census 1990 and 2000: Lüdi, Werlen et al. 1997, 2005).

Fruitful subjects for research would include: the use of several languages in families with and without a migration background, the relationship between multilingual use and social stratification, groups historical language minorities and their use of several languages, profession-related multilingual use, comprehension skills, etc. It would be necessary, then, to assess the dynamics of developments and changes over time.

A dynamic digital map of the linguistic landscape constitutes a suggestion for research which could, if portrayed in a digital visual form, pave the way for a new form of social consciousness. It may lead to a map showing a "population's language use in year X".

3.3.2 At the national level, it is important to increase awareness of heteroglosses by the population as a way of expanding their cultural heritage, rather than treating multilingual communicative competences as a side issue. Studies should examine if and how media participation is possible for minority languages, how the dissemination of knowledge about the heteroglossy is available in institutions and in urban and rural contexts. Applied areas of research, such as the training of 'language pilots', people who have a mediatory function (see Valdes 2003) and do media work, may lead to the emergence of new professions relating to integration work of a culturally sensitive nature. *Second and third generation immigrants* in particular may offer professional potential in this respect, with the benefit of going far beyond low-paid public sector work and including work in the media. As far as work on the interpretation of complex social environments is concerned,

second and third generation immigrants may be able to provide insights for important studies on integration in Europe.

3.3.3 It is important to investigate the *legal basis* for languages in a country with respect to historical minority languages, and also for regional and migrant languages. National constitutions differ substantially in this regard and the research conducted thus far has been inadequate in its consideration of the legal basis of multilingualism. There is no shortage of emotionalised studies; it would now seem appropriate to produce an objective comparison of countries, to analyse the legal footing of the languages in a culturally sensitive manner and to consider the *best practice* of handling multilingualism. The objective is to address the question of "language and law" and to look at how the relationship between historical minority languages and migrant languages can be defined in legal terms, so that they are recognised in a culturally appropriate manner. The question of language and power, again, relates significantly to this issue.

3.4   Multilingualism in institutions

3.4.1 Institutions seem not to be fully aware of the language potential they house when considering their personnel. In an age where knowledge-based societies are at the midpoint of economic development, this potential should definitely be attracting more attention. Some enterprises are beginning to draw up "balance sheets for knowledge assets" which could potentially be enlarged to embrace language topics. It goes without saying that the success of a company or an institution in a globalised world depends largely on employees with particular multilingual competencies. Models which use incentives of different natures to enhance multilingual competencies could be highlighted as "good practice".

3.4.2 There is little reliable information available, however, on the manner in which employees' language competencies can be included in such a balance sheet of knowledge, nor of how these are recorded and used. Since communication skills are acknowledged as key qualifications, the benefit a company should be able to derive from improvement of these skills would be significant. There are, indeed, a large number of studies on "language in the workplace" – often incorporating an intercultural viewpoint and relating to a specialist group – but expansion of research into the field of multilingualism is still in its infancy. The work environment represents one of the most prominent areas in which languages can be acquired in a practical context.

There is also a lack of research into the competencies of highly qualified specialist groups, and also into the practical performance of daily tasks. The entire language production chain should be scrutinized, from writing letters and media texts, to proofreading, translations, interpreting activities, to international negotiation procedures, etc. In multinational companies and in institutions such as hospitals, schools, government offices, Non-Governmental Organizations, Higher Education Organisations, and so on, the aim now, over and above discourse on interculturalism, is to study those selected language practices which are used when communicating in a daily working environment, and which are increasingly subject to the influence of different languages and codes. In addition to studying translation and interpreting technology, further studies should be done on other verbal and written sub-forms of communication.

Research on "multilingualism in business" should therefore be expanded, incorporating a perspective on multilingualism which goes above and beyond immediate economic benefit (as is the aim of some working groups in the two European research consortia LINEE and *Dylan* mentioned above). This perspective should be much more closely associated with the principles of a community of knowledge.

3.4.3 In this context, there is still too little awareness of the fact that multilingual people who have grown up using a non-European language have international networks at their disposal and are therefore able to establish many contacts easily. These people can act as Europe's ambassadors in the world, because they are able to play a culturally sensitive role in other areas of the world. Such people definitely represent a potential for business contacts. The value attached to these competencies provides second and third generation immigrants with an additional opportunity to integrate themselves proactively and constructively into Europe. For example, instead of long and laborious attempts by monolingual people who have grown up using English to learn Arabic or Mandarin Chinese, for example, investment in training for so-called "Bildungsinländer" (educational residents), the children of immigrants who grow up in family with these languages, could be more effective.

A better consideration of multilingual competencies of second and third generations can have also the side-effect of a positive integration into society.

Questions for an explorative, initial investigation could include: Are multilingual competencies selected according to special considerations and are they applied systematically in institutions? Are employees' language skills promoted above and beyond language courses and language holidays? Are companies aware of the networking and mediating potential of second and third generation immigrants? Is there any cultural common ground in handling within-company multilingual practices? Do companies explain their language policy in official documentation?

3.5   Multilingualism in discourse

Over the last forty years, spontaneous, bilingual communication has become a very well-researched field. Studies on code-switching have made a significant contribution to the understanding of how bilingual expertise is used creatively alongside the standard uses of normative grammars (see Auer 1999; Milroy and Muysken 1995; Muysken 2000; Myers Scotton 1993, among many others). Code-switching behaviour, and its sub-forms, is spread across the world and is used widely as an expansion of modes of expression by multilinguals, more typically used in informal contexts. In addition, code-switching is generally used in contexts where there is no major potential for social conflict between the two languages.

In addition to bilingual practices – which were central to research into code-switching – it is an opportune time for practices with more than two languages (or dialects) to now form the focus of research. There is a need to investigate other, perhaps *new forms of multilingual interaction*, forms which may develop between people with different constellations of multilingual competence. At this point, the concept of majority and minority languages can be seen as separate from their typical attributions and definitional scope, such that interlocutor relationships are reversed or become insignificant. Rampton, for example, uses the term *crossing* to describe the use of a minority language by majority youths in school playgrounds, where English speakers have learnt Punjabi "en passant" from their schoolmates (Rampton 1995). The same process can be observed in Germany, where a certain amount of Turkish has been integrated into the language of German speakers (see Dirim and Auer 2004). A similar phenomenon was noted in Switzerland, where the term "language adoption" was introduced: the majority 'picks up' a language of a minority through the process of unfocussed acquisition (Franceschini 1999, 2003).

The use of different ethnolects is part and parcel of a landscape of linguistic behaviour, and initial research suggests that these forms of language use are not restricted to immigrants alone (see Cornips and Nortier 2008, among others). Research into these types of "reverse" language contact phenomena in Europe is still in its infancy. In general terms, these are phenomena of *language adoption*, that is, majority language speakers adopt the languages of minorities and incorporate some vocabulary items or entire chunks and parts of speech into their own practice. These phenomena are exhibited primarily in societies with a large number of multilingual speakers. In multilingual societies, where making contact is more straightforward, these forms of communication are widespread, and are now in need of in-depth investigation and analysis. The term *unfocussed language acquisition* (Franceschini 2003) is used to describe acquisition in contexts where people construct communicative competencies without making any overt, con-

scious effort to learn a language. This type of acquisition evidently reflects a process of 'learning' through direct contact with those languages in everyday use.

Undreamt-of linguistic scenarios must thus be investigated in order to obtain an overview of the variety of current, possible language forms, particularly among youth (Androutsopoulos 2003), who seem to have a more relaxed attitude than older generations towards the simultaneous use of several languages (consider, for example, the many forms of multilingual rap music). The following section offers some possible scenarios:

3.5.1 Even if creative professions in the fields of graphics, web and product design, film, music, multimedia, cultural tourism etc. ("creative class" in Florida 2002, 2005, 2008) continue to grow, it is not clear how forms of communication in these fields might affect forms of multilingualism. In general, we do not know very much about the purely functional use of languages used only in professional contexts.

Possible research areas include: Which grammatical characteristics do languages have which are used in professional contexts? Does the fact that a language is used by non-native speakers have an effect in the use and structure of that language? Do only trends towards linguistic simplification exist or do convergence phenomena exist or develop as well? How can simplified forms of the written language (as, for instance, in e-mails) be described when produced by less proficient writers in their everyday lives and at work?

3.5.2 Forms of "unconscious" or incidental learning (Wode 1999) – I prefer the term 'unfocussed language acquisition', as mentioned above – will become ever more probable and common. This is a consequence of media bombardment and the extension of 'covert exposure' to languages in multilingual everyday contexts (in cities, for example, or simply through media exposure). Thus, some receptive competencies can be attributed to unfocussed language acquisition. Further research is required to explain these developmental connections and to make them useful in an everyday multilingual environment. Networks in the brain also appear to develop by means of "covert exposure". It will then be possible for an individual to activate these networks to facilitate language acquisition at a later age (Bloch 2006; Bloch et al. 2009).

3.5.3 Another current development is the increased exchange of students in Europe, which has led to a variety of language scenarios which have been investigated under the term "exolingual communication" (i.e. conversations between non-native speakers and native speakers). This is not the only form of communication which is currently gaining in significance. In fact, forms of conversation of a different character have recently been investigated under the term of

"interalloglottal communication" (Behrent 2007). That is, it is not only English that is used as a means of communication between those who speak different languages. One of the established local languages can also be used in these cases, even if *no native speakers* are present. Today, discussion relating to *linguae francae* and professional languages in Europe has typically centered around English (Seidlhofer 2006; Jenkins, Modiano and Seidlhofer 2003; Jenkins 2007). Our knowledge of how other languages are used as *linguae francae* and *emerging varieties* is therefore still limited (see Cornips and Nortier 2008; Jenkins, Modiano and Seidlhofer 2006).

With communication becoming increasingly multilingual, some of the above-mentioned varieties are sometimes described in negative terms, as "broken languages". However, the practice of incomplete multilingual competencies subserving communication definitely does not conflict with a normative approach. On the contrary, it illustrates how it is possible to succeed, for example in a professional environment, even with relatively low skill levels.

Documentation of the above phenomena remains sporadic, but it can be assumed that practices such as these were widespread in previous centuries as well. This is how pidgins and *linguae francae* were consistently disseminated as languages of communication around the world.

Evidence of what at first glance looks like incomplete language mastery has generally been recorded in the form of amusing anecdotes. By using studies on pidgin languages as a starting point, possible research topics emerge, such as: How do tourists communicate? What are the features of communication between long-distance drivers in Europe (at service stations on the motorway, at customs posts, etc.)? How do the players of different nationalities communicate on a football team?

3.5.4 The establishment of *media discourse*, operating across a number of languages, is open to applied research. Research questions in this regard might include: Does a European communication culture exist; can it be accessed and transmitted? Are there any specific linguistic features of European journalism, and which forms do they take? How can a multilingual identity be created, and how could it be communicated by media and advertising?

3.5.5 The field of CMC (Computer Mediated Communication) must also be considered as part of the multilingualism framework: Given that, according to the CyberAtlas (cyberatlas.internet.com), English is not the first language for approximately two thirds of Internet users, we can assume that this would affect the form English takes.

Promising and interesting areas of investigation in this field might encompass questions about how individuals with not fully-developed competencies carry out communicative tasks: How do they overcome problems in expressing themselves? In which ways do makeshift software and translation software contribute to the degree of communication success? How can knowledge of a third and/or fourth language improve a multilingual's expertise in understanding, and also assist in language production (writing and speaking) of the other languages, respectively?

3.5.6 Similar questions can be raised with regard to issues such as *multilingual practices on the Internet*. This research orientation has evolved over recent years in connection with the development of language technology. The next step is to incorporate culturally, politically and linguistically sensitive issues into this research field.

Various forms of CMC, as well as other themes which deal with "The Multilingual Internet" can now be further investigated (see for example the initiatives of Danet and Herring 2007).

In this regard, possible research questions could be formulated, for example, as follows: People who have acquired English as their first language are no longer the majority among Internet users. Given these circumstances, which methods of communication are used and how are language codes – whose aim is to be comprehensible worldwide – developed from these?

In addition to the above-mentioned questions, so far little research attention has been paid to the language design of web pages in multilingual sociocultural contexts. The same is true for the connection between superlingual symbols on the Internet and symbols and languages. Another essential survey would include typeface systems and an investigation of how linguistic norms develop on the multilingual Internet. For example, to what degree is the Internet format Unicode (www.unicode.org) appropriate for handling multilingualism and multilingual users, since it can be used to represent different typefaces (e.g. Cyrillic, Arabic, etc.) more easily than ASCII code? Which specific practices have been developing over time to establish a culturally appropriate representation of other typeface systems and to make them legible for other users?

Avenues of research questions in this area could include: Are symbols (such as emoticons) used to bridge gaps in language skills of writers and readers? How are misunderstandings neutralised by a reader who might be reading a site in one of the languages which s/he has not mastered particularly well? How are the internet skills of web users enhanced by their multilingualism? Do multilingual web users contribute to a pluricultural web? Where are the boundaries between invariants and culturally sensitive variants of web design?

3.5.7 A greater interest in the research and development of communication is currently being initiated in Europe. New possibilities have been created by the emergence of auxiliary software for communication in technical media. Information is gathered from various language sources and not via translation. *Multilingual data mining* is therefore a viable research suggestion, and such research is at present being conducted into the feasibility of technical ontologies in order to enable an individual non-language-specific search on the "multilingual web".

3.6   Multilingualism in the individual

Individual multilingualism is the most frequently investigated language phenomenon in the field of bilingualism; popular areas of investigation include the acquisition of languages in a natural context (e.g. in the family, or at a later period in direct contact, etc.) and formal learning (at school, in language courses, with a private teacher). These two forms – language acquisition and language learning – often occur side by side or are mingled together to various degrees in the biography of speakers.

An individual's first language, at least, is acquired implicitly, although adults can also make use of the natural language acquisition route. The phenomenon of spontaneous acquisition of a language in non-formal contexts by adults by means of direct exposure to a language has been investigated thoroughly in relation to migrants (as it was, for example, in the "Heidelberg Research Project on Pidgin German" and the "Immigrant Language Acquisition" ESF-project on adult language acquisition, conducted over many years since the 1990s by Klein and Perdue, see Klein and Perdue 1992).

Bilingual development in early childhood (age 0–3) and studies on the learning environment for youths and students are also among the issues on which a good deal of research has already been done. Important precursory work on early parallel bilingual acquisition was done at the University of Hamburg by the research group "Mehrsprachigkeit" (Sonderforschungsbereich 538)), funded by the German Research Foundation (DFG) and directed Jürgen Meisel (see Meisel 1990, 2004). Now, it is time to draw attention to other age groups.

It is important to:

1. investigate bilingual and multilingual development at the ages which have been less researched, i.e. from the age of four to approximately fourteen, and learning at a considerably advanced age;
2. study non-academic learning environments for their success potential (this includes an emphasis on implicit learning);

3. conduct systematic research into the long-term consequences of early foreign language learning at school and – if possible – to measure these.

3.6.1 While the area of research relating to early simultaneous bilingual language acquisition (age 1–3) is well advanced (see Meisel 1990 as a starting point, and then some chapters in Müller et al. 2006, and Meisel 2009), research on *multiple language acquisition in early childhood* (ages approx. 4 to 7) is still lacking. This relates not only to bilingual families of migrants who are international specialists, but in fact to populations not heavily or sufficiently involved in formal education.

Research questions could be formulated as follows: What are the effects of successive acquisition of two or more languages by a child of 4–7 years of age? What is the influence of the mode of acquisition as the child grows older? Which language aspect (phonology, morphology, syntax or vocabulary) displays more apparent influences? What are the effects of "exposure" to a language other than the family's from early childhood onwards and are these detectable in later life?

3.6.2 Efforts are being made across Europe to teach children a second and third language in addition to their first language(s) in nursery schools and in primary schools. There is little empirically-based research available which could serve as impartial documentation of how the language acquisition process works in nursery school and primary school, and how "acquisition" and "learning" coincide at an age in which plasticity is high (see Mechelli et al. 2004).

Since initiatives for the acquisition of foreign languages at an early age are spreading, consideration should be given, even now, as to how *the long-term effects* of early language acquisition can be studied, by comparing various teaching models. However, there is a lack of parameters which can be used as a basis for comparison. One suggestion is to use data obtained from documenting acquisition processes in teaching. Another suggestion is to develop criteria by which successful acquisition can be measured. The long-term effects of early acquisition at school form an explosive topic in terms of education policy and, therefore, require processing from a scientific viewpoint.

Taking into consideration the controversies about the age factor in acquisition (Singleton and Lengyel 1995; Birdsong 1999; Hyltenstam and Obler 1999), we may pose the following questions: How does starting to learn a foreign language earlier at school (at the age of 7 or 9 or 11) influence the language competency of the learner later in life? Are the differences between the learners who started acquiring multiple languages at different early ages measurable?

3.6.3 These and other questions – such as those about matching didactic methods to the age of the learner – must be resolved with an open mind. The continuity in

learning a language at school has a part to play in this debate. Sometimes a discontinuity in the language curriculum can be noticed, which also suggests that there is a need for research into how language is forgotten during childhood and how skills can be reactivated at a later stage in life. Hardly any studies have been conducted on these issues.

3.6.4 There is also a need for specific investigation of how the acquisition of a *third language* (or fourth language) affects the languages already mastered by an individual. Initial results of research on third languages (see above) indicate that there are, *inter alia*, accelerating feedback effects. It was observed, for example, that when new languages (third, fourth, etc.) are acquired, one of the languages serves as an auxiliary language, promoting intercomprehension. Little is known about the linguistic resources made available by an individual's multilingual repertoire.

On the other hand, neurobiological research demonstrates that, depending upon the age at which the second language is acquired, the basis of the third language is drawn upon, if the second language was acquired before the age of three. If a second and third language are acquired later (after age 9), they form their own networks together, separate from that of the first language (Wattendorf et al. 2001).

More extensive research with triangulation of several methodologies is required here.

3.6.5 There is a major deficit in research at the other end of the age range. We know little about *language learning at an advanced age*: still, we can already build on the pioneering studies by Pavlenko 1998, Fiehler and Thimm 1998, and also Dewaele's work, which addresses the multilingual experience in adulthood (see e.g. Dewaele 2007). Taddei Gheiler (2005) is interested in the language of elderly people, as are Schrauf (2000), Thimm (2000), de Bot and Makoni (2005) and Fiehler (2008). The contribution of older sectors of the population in assuring the quality of communication in a society is still accorded too little respect. It is precisely elderly people, with their wide range of experience, who can effectively assist language acquisition by young children.

How are languages maintained when a person reaches retirement age? How can these language skills be retained, promoted and supported? Are language courses the most appropriate method for this? Is social interaction, acting as 'language pilots' (e.g. tutors for alloglott children), conducive to maintaining a good level of language skills?

3.6.6 There is insufficient cooperation between teachers and researchers of various disciplines (linguistics, applied linguistics, psycho- and neurolinguistics,

ethnography etc.). More *interdisciplinary co-operation with teachers* is needed. Especially with respect to CLIL teaching, a huge amount of collaborative work between teachers and researchers is awaiting more in-depth research. Along with this, the first steps have already been taken towards measuring the effects of CLIL or enhanced bilingual programs on school children's general and linguistic knowledge. The aim now should be to bring educational science and language acquisition research closer together, in order to use the most productive means possible to investigate the cases of insufficient linguistic and general knowledge and to develop teaching models which could fill these gaps. The suggestion here is to bring research and teaching closer together.

3.6.7 Much attention has been paid in recent decades to the institutional learning of languages. School is, after all, regarded as one of the privileged venues of learning. Language learning differs from other areas of cognitive activities in that, like music, it requires the acquisition of skills obtained by practical exercises in addition to studying structures, rules and facts. It takes more than the recognition of notes to sing a song. Consequently, an active command of a language must to a large extent be acquired by practice. Schools, particularly those implementing CLIL concepts, are aware of this and increasingly emphasise applications and practical uses of languages. In "task learning" – into which a good deal of research has been conducted – language acquisition is stimulated by the need to attain a specific objective (for example, building a den, making a tool, learning how to climb, and so on, with a child who speaks a different language). The patterns of the other language required for performing a practical task are learned in this way.

In the academic sector, in the 1980s, much research was conducted on "learning strategies" employed by children while learning foreign languages at school (see the pioneering work of O'Malley, Chamot, and Oxford in the 1990s and also Kemp 2007). Some 50 strategies were distinguished, from metacognitive and cognitive to affective. Little is known, however, about "acquisition strategies" applied outside of school (e.g. via the media), not just by children, but also by adults in their everyday lives. This would be a useful area of applied research on teaching methods (the concept of "collective scaffolding", Donato 1994, can be useful in this context).

If this approach were developed, it would be necessary to assign a significant place to those activities during which language learning occurs "indirectly". Leisure activities could be exploited to an even greater extent than before for this sort of "indirect" language learning. From an academic point of view, it is important to keep track of the effectiveness of the learning process and to develop some concept of the degree of efficiency.

3.6.8 In the past, the discussion of exceptional abilities was used as the basis for research of the "talented speaker". There are few studies available which throw light on the biographical circumstances of particularly gifted language learners, including their relevant neurobiological characteristics. Access to language biographies by means of in-depth interviews has proven fruitful in this area (Franceschini and Miecznikowski 2004). Studies of this kind, carried out in such a way as to provide "language portraits" of multilingual people explaining how they learnt their languages (see e.g. Pavlenko 1998), may also be useful in promoting awareness of the varieties of multilingualism existent in Europe.

In methodological terms, studies of multilingual speakers who have achieved "near-native" skills (von Stutterheim 1993; Byrnes et al. 2006; Maik and Grommes 2008) may also be a useful way of highlighting those factors which make people especially competent speakers.

3.6.9 There is little – other than some evidence of a neurobiological nature (see the studies conducted by the group led by Friederici at the Max Planck Institute of Cognitive Neuroscience, Leipzig, e.g. Maess et al. 2001) – to suggest any link between *musicality and language competence.* Certain aspects of both of these abilities are supported by similar neuronal networks, which means that we can assume that the teaching of musical skills will increase the effectiveness of language learning with respect to further languages, particularly since the ability to discriminate sounds is of fundamental significance for language learning. In light of these facts, it would be important to investigate whether the promotion of music teaching at an early age would be beneficial for the acquisition of multilingualism.

3.6.10 Even though many publications appearing under the heading of multilingualism seem to start (sometimes uncritically) from an emphatically positive basic assumption, it should not be forgotten, once again, that there are cases in which individuals do not succeed in learning multiple languages. The question must be addressed as to why some groups of children, above all teenagers and some sub-groups of migrant children, do not take advantage of multilingual situations and do not manage to gain positive social capital. There is much to suggest that a systemic approach which includes the family, above all the mother, might be successful.

The effects of unfavourable living conditions in a society must be addressed with an open mind. For example, migration, socially-exclusionary housing situations, cultural alienation and socially disadvantaged circumstances, negative attitudes towards a language group etc. expressed in disinterest in communicative and social activities may all be factors to be overcome. In order to counteract the previously held hypothesis of bi- and multilinguals' social deficiencies, current

approaches taken in sociological studies of environments, ecolinguistics (see e.g. Mühlhäusler 2003) and ethnographic analyses are required in order to properly understand the heterogeneity of the discourses involved and to take appropriate action. Interdisciplinary collaboration (sociology, urban studies, linguistics and communication studies, educational studies and psychology, etc.) will prove instrumental in conducting successful research into whether or not language contact in urban and rural environments are beneficial for social harmony.

3.6.11 On the other hand, case studies on language *resilience* in milieus with little contact to formal education – as a form of counter-evidence – can provide information on important linguistic, social and cultural factors, and in general, provide positive insights which would need to be converted into actions. This topic, too, goes beyond linguistics; it is therefore appropriate to strive for interdisciplinary studies, as described above.

4.   Final remarks

What are the advances, strengths and lacunae in the field of multilingualism research?

Without a doubt, the development of the field is promising and positive, with increasing dynamism in the last ten years. In this wave of intensive investigation, various areas of research such as bilingual teaching, second language acquisition and contact linguistics have been subsumed to studies on multilingualism. Unlike in the past, when differences between learning and acquisition were at the centre of attention, current research interest focuses on how the acquisition and learning of languages interact in different contexts in the process of becoming bi- and multilingual.

After a long period of intense work on code-switching and code mixing all over the world, the study of emerging language varieties both among young people and in other age groups may now be seen as a promising field. We can expect further insights into the use of languages in contact situations. Advances in this direction are being facilitated by representatives of the second and third generations of linguistic minority groups, who are joining the academic community of researchers into multilingualism. These researchers can provide an additional unique 'insider'-point of view on the new forms of multiple language use, a perspective which should be taken into account to a larger extent than it is today.

An avenue of research on multilingualism is emerging from the exploration of the use of languages in a historical perspective. Historical studies make it possible to refine research and experimental concepts and methods of research and to

pinpoint generalisations over time. A solid foundation of well-established philological and historical methodology will facilitate the development of historical studies in multilingualism.

The scope of the concept of multilingualism and relevant terminology will continue to be a matter of debate in future. As multilingualism has not yet gained the status of an independent field of scientific inquiry, more reflexion is needed to establish a coherent methodological and theoretical framework so that these issues may be addressed explicitly and systematically. In this way, we may hope that convergent and mature theoretical and empirical paradigms and methodological procedures will provide a sound basis for further development of an autonomous research field (see for example, Cook 1992, 2005; Herdina and Jessner 2002; de Bot 1992, 2008; Green 1998; Larsen-Freeman 1997).

Therefore, in the future, emphasis should be given to fostering theoretical and methodological reflexion, based on good empirical groundwork. The increasing need to develop multifactorial approaches, including triangulation, presents a special challenge. Furthermore, it is necessary to address the issue of formalization and operationalisation in those areas of multilingual research which employ a dynamic systems approach.

Among the many challenges for the future, there is the necessity to review the entire field of research on multilingualism with a specific focus on its application. Education can benefit from exploring multilingualism in a broad sense. The questions worth posing are: Which findings and concepts of multilingualism are helpful at school and outside formal education? Which implications of research on multilingualism are important to convey to parents, to policy and decision makers and to business people? And what kind of contact does the emerging 'language industry' – as a cultural and economic factor – have on research in multilingualism?

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The development of psycholinguistic research on crosslinguistic influence

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The present chapter describes the development of psycholinguistic research on crosslinguistic influence. It focuses more specifically on key topics covered in the last decennia, how and when the discipline effectively branched out to frameworks not previously examined in CLI research, and the crucial role that the L3 networks has had in these developments since the First International Conference on Third Language Acquisition and Multilingualism organized in 1999 at the University of Innsbruck.

Keywords: crosslinguistic influence, transfer, trilingualism

The study of non-native language influence and multilingualism is a young area of research which combines traditional and well-established hypotheses about crosslinguistic influence (CLI) and second languages with theories and frameworks that can accommodate the existence of more than two languages in the mind.

While questions about CLI and multilingualism have been raised for a long time, they did not impact mainstream theory right away. Researchers' efforts were initially directed towards defining transfer phenomena from the L1 to the L2 and understand why, how and when learners used prior knowledge in the second language learning process. In due course, questions about multilingualism began to emerge, and this led to an important growth in research output within a relatively short time. The increase in interest also led to the establishment of an international network of scholars sharing similar interests, and to the foundation of the International Association of Multilingualism, as we shall explain below.

In order to understand current research on CLI and multilingualism and to appreciate the role that the L3 international network has had in shaping this new area of inquiry, it is useful to go back in time and examine some of the most influential works published over the years. A focus on the elements of novelty these studies proposed can help us see how changes were progressively introduced. To this end, the present paper examines the key topics covered in the last decennia,

how and when the discipline effectively branched out to frameworks not previously examined in CLI research, and the crucial role that the L3 networks has had in these developments from the 1990s to the present day.

The field in the 1950s and 1960s

During the 1950s and 1960s, hardly any studies on language transfer from non-native languages were produced. There are, however, at least three significant publications that ought to be mentioned. These are Weinreich (1953), Vildomec (1963) and Peal and Lambert (1962).

Weinreich's (1953) book *Languages in Contact* focused on bilingualism rather than multilingualism, but his theories form the base of later proposals of relevance to multilingualism and to language transfer research. For instance, we owe to him the coordinate, compound and subordinate distinction, which informed influential hypotheses such as the word association and concept mediation hypotheses (Potter et al. 1984) initially proposed for bilinguals but later tested with multilinguals as well. We also owe to him the intuition that transfer sometimes "does not involve the outright transfer of elements at all" (Weinreich 1953: 7), a view that was taken up again in the 1970s when error analysis had already began to be amply criticized within the academic community.

Vildomec's (1963) work had perhaps less of an impact than Weinreich's (1953), even though his book entitled *Multilingualism* remains one of the most comprehensive accounts of multilingual phenomena ever collected to date. To our knowledge, Vildomec was the first to discuss non-native language transfer in a systematic manner as well as to argue that some instances of non-native language transfer can be informed by the emotional value connected to them. Moreover, Vildomec (1963) was the first to point out that more than one language can simultaneously influence a target language, as the following statement suggests: "if two or more tongues which a subject has mastered are similar (both linguistically and psychologically) they may 'co-operate' in interfering with other tongues" (1963: 212). While his ideas were undoubtedly revolutionary at the time – and were in fact mostly ignored – less than half a century later they proved to be highly innovative, original, and mostly accurate. Some limitations lie perhaps in the meticulously descriptive nature of his work, which somewhat clashes with current approaches more concerned with defining underlying cognitive processes rather than focusing exclusively on end products. Nonetheless, Vildomec's (1963) work remains a goldmine of ideas for those interested in multilingualism and language transfer.

The third study, Peal and Lambert (1962), was not directly linked to multilingualism, but it is mentioned here because of the crucial role it had in fighting the view that prior language knowledge, and bilingualism in particular, was detrimental to the human mind. In the 1960s, it was difficult to speak about bilingualism or multilingualism in a constructive manner, as most researchers were convinced that the knowledge of non-native languages was a hindrance rather than an asset for the individual. Peal and Lambert (1962) helped change these views by showing that in fact bilinguals had some definite advantages in terms of cognitive flexibility in comparison to monolinguals. Thanks to their work, researchers began to view bilinguals under a different light and this led to a gradual shift in research focus. Moreover, Peal and Lambert's (1962) ample criticism of subject selection procedures used in previous studies on bilingualism generally contributed to the introduction of more rigorous practices in experimental research.

The field in the 1970s

The 1970s were crucial and exciting times for the development of language transfer research. Firstly, this was the time when several scholars began to argue that non-native languages had properties of their own and could not be viewed as imperfect versions of a native language. To reflect the unique nature of non-native languages, Nemser (1971) referred to them as "approximative systems", Corder (1971) as "transitional idiosyncratic dialects" and Selinker (1972) as "interlanguages." Around the same time, Schachter (1974) also put forward the important argument that transfer does not necessarily need to be overt, but can also be covert. Transfer then began to be conceived as a phenomenon which was not always clearly detectable in production.

   Most studies on language transfer published during the 1970s were highly descriptive in nature and often used error analysis as their main framework of discussion. Some examples of these are Rivers (1979), Chamot (1973) and Chandrasekhar (1978). This last study, however, also showed some substantial elements of innovation for those times. The author discussed instances of transfer from multiple sources of knowledge and also proposed the "base language" hypotheses, according to which learners rely on the language that most resembles the target language in production, regardless of whether this is the L1 or an L2. At around the same time Kellerman (1977, 1978, 1979) also put forward the notion of perceived language distance, and introduced the term 'psychotypology' in Kellerman (1983).

   Other studies in this decade introduced more of a modern cognitive twist to their research focus. Singh and Carroll (1979), for instance, discussed overgeneralization

strategies in relation to non-native language transfer. Stedje (1977) identified length of residence as a key factor for non-native transfer and also found some differences in the use of content words from the L1 and the L2 in production. There were also attempts to explain transfer phenomena through psycholinguistic research. On the basis of findings in memory research, for instance, Tulving and Colotla (1970) claimed that the act of remembering language membership information was an additional demand on the human mind and this consequently slowed down the production process in multilingual speakers. Mägiste (1979) instead argued that language systems can compete with one another and that the amount of storage held in the mind can be directly associated with the amount of transfer likely to occur.

Last but not least, one classic book should be included among the most influential works of this decade: *The Bilingual Brain* by Albert and Obler (1978). The book reports on the recovery patterns of aphasic patients. It draws some essential dividing lines between bilinguals and multilinguals identifying different recovery patterns for the two speaker groups. For instance, multilinguals were found to recover first the languages they used most frequently prior to brain injury, rather than the languages they acquired first in order of time. In the following decade, frequency of use would also emerge as a key factor for crosslinguistic influence in multilinguals.

The field in the 1980s

Research on non-native language influence saw a rapid growth in the 1980s. In this decade, researchers began to focus on the cognitive and psycholinguistic aspects of CLI and research became clearly concerned with processes rather than products. The number of studies on non-native language influence remained relatively small in comparison to those on transfer from the L1 to the L2, but they were also noticeably on the increase.

A much debated topic in this decade was that of language distance and its role in triggering instances of transfer from non-native languages. As discussed with reference to the previous decade, language distance had already started to be associated with language transfer, and this line of research continued to evolve throughout the 1980s. Several studies, in fact, dealt with these specific topics, adding much to the body of knowledge of those times due to the number of different language combinations that were examined. For instance, research was published on Igbo, English and French (Ahukanna et al. 1981), German, French and Spanish (Möhle 1989), Finnish, Swedish and English (Ringbom 1986; Ringbom 1987), Portuguese, English and Arabic (Schmidt and Frota 1986), English, Spanish and

French (Singleton 1987), Dutch, English and German (Voorwinde 1981). While most of these studies identified language similarity as a triggering factor for language transfer, they also provided some evidence that transfer could come from languages distant from the target language, even when a language closer to the target was in the speaker's mind (see, for instance, Schmidt and Frota 1986). In this decade Ringbom (1987) also published one of the most detailed accounts of non-native language transfer available to date, which was the first significant attempt to apply hypotheses about CLI to a third language.

Other key topics of relevance to CLI research which began to be discussed during the 1980s include the role of metalinguistic awareness in language learning and that of passive or active knowledge in the mind. Among the classic studies in these areas are Thomas (1988) and Mägiste (1984, 1986). The general claim at the time was that metalinguistic awareness positively affected language learning, but prior knowledge had to be actively used by the speaker. While much would be said on these initial conclusions in the following decade, this line of work was essential to bringing to the fore the interacting effects of instruction and prior knowledge in the language learning process. Some studies which seemed to run counter to these general positive claims appearing in the literature came from information processing research (McLaughlin and Nayak 1989; Nation and McLaughlin 1986). These studies, which addressed the question of whether multilinguals are better at learning languages than monolinguals or bilinguals, generally maintained that multilinguals do not display any superiority in language learning in the case of explicit learning, while they show an advantage in the case of implicit learning. The languages used to come to these conclusions, however, were artificial ones.

During the 1980s, psycholinguistic research was also making huge progress. Several of the production models proposed in this decade became central for discussions on multilingualism within a few years. Among the most influential production models, for instance, we find Dell (1986) and Levelt (1989). Dell (1986) proposed that speech is produced by ways of a mechanism of activation spreading from node to node between levels of encoding. In contrast, Levelt (1989) proposed that speech is elaborated at three different levels of encoding (Conceptualizer, Formulator and Articulator) and is essentially incremental and parallel, i.e. a component can start working as soon as information is received and can do so while other components are working at the same time.

One other influential model which appeared in this decade is Green (1986). This was a bilingual model which explained the production process through a mechanism of activation and inhibition. The model proposed that languages could be activated to different levels: they could be selected (used), active (play some influence on ongoing processing) and dormant (not used). It became

particularly appealing for those working on multilingualism because it effectively proposed a framework which allowed one to account for the processes underlying speech production in bilingual speakers, a solution that none of the previous models had offered.

The rapid increase of CLI research in the 1990s

Research on non-native language influence and multilingualism saw a rapid development throughout the 1990s. The trend has continued up the present day. There are two possible reasons for this significant increase in research output. On the one hand, a general interest in the topic emerged as more and more studies began to appear in the literature. On the other hand, scholars who shared similar interests were formally able to meet at the First International Conference on Third Language Acquisition and Multilingualism organized in 1999 at the University of Innsbruck. The event marked the beginning of many later developments, as shall be explained below.

Among the favoured topics of the 1990s, language distance continued to emerge as one of the most investigated (see Clyne 1997; Clyne and Cassia 1999; De Angelis 1999; Dewaele 1998; Selinker and Baumgartner-Cohen 1995). A distinctive element of novelty in some of these studies is the attempt to explain non-native language influence not only in relation to traditional CLI theory but also in relation to the speech production process. When, how and why is non-native language information selected and retrieved during speech production?

Grosjean (1997) introduced an important notion related to this question: the language mode hypothesis. It replaced his earlier proposal of a speech mode in 1994. The language mode refers to the state of activation of the bilingual's languages and language processing mechanisms at a given point in time. The activation of a language entails that it can be more easily selected during the production process. Grosjean (2001) also developed his model further to include a third language. A heated debate developed in the field on the merits of Grosjean's model (Dewaele and Edwards 2001; Dijkstra and Van Hell 2003). The crucial issue was whether selection and de-selection correspond to proactive activation and deactivation of languages in the mind of the bilingual. Green (1998) questioned the concept of language modes and proposed an alternative approach, based on the principle of inhibition at different levels, i.e., a combination of proactive and retroactive regulation of the output of the bilingual's lexico-semantic system.

In the 1990s, several authors attempted to explain CLI phenomena in relation to the speech production process, including the authors of the present paper. During this decade, it became increasingly apparent to researchers working on

multilingualism that the patterns they uncovered could not be adequately explained within traditional frameworks. A strong need was felt for both theoretical and methodological innovation. The questions asked until that time in relation to second languages began to be posed in relation to third or additional languages, and the result was a substantial proliferation of work in the most varied areas of inquiry. To give a sense of the variety and breadth of topics, we may point out that we find publications on the structure of the trilingual lexicon and the relationship between the level of independence among the speaker's languages (Abunuwara 1992); we also find research on multilingual memory (De Groot and Hoeks 1995), additive trilingualism and education (Cenoz and Valencia 1994; Leman 1990; Sanders and Meijers 1995; Valencia and Cenoz 1992), the relationship between non-native transfer and speech production (Dewaele 1998; De Angelis 1999; Williams and Hammarberg 1998) and the role of literacy or metalinguistic awareness in language learning (Galambos and Goldin-Meadow 1990; Jessner 1999; Kemp 1999; Swain, Lapkin, Rowen and Hart 1990; Thomas 1992). Several studies also focused specifically on transfer phenomena in phonology (Hammarberg and Hammarberg 1993), morphology (De Angelis 1999; Clyne and Cassia 1999) and syntax (Klein 1995; Zobl 1992). Moreover, several models and hypotheses of bilingual and multilingual production (see de Bot 1992; Grosjean 1992, 1997, 1998) became more and more central to discussions about multilingualism and CLI.

In 1999 researchers interested in multilingualism also met for the first time at the First International Conference on Third Language Acquisition and Multilingualism in Innsbruck, Austria (see Ecke, this volume). The event marked the beginning of the establishment of an international network of scholars who shared similar interests and similar goals in research.

On the whole, it can be said that by the end of the 1990s, research on multilingualism and the use of prior knowledge in comprehension and production had to all effects become a significant area of inquiry within applied language studies. Following the First International Conference on Third Language Acquisition and Multilingualism just mentioned, the field has continued to grow at an impressive speed.

CLI research in the new millennium

The beginning of the current decade can be described as a period of intense research activity. There was an intense debate on the uniqueness of trilingualism research (Hoffman 2000, 2001a, 2001b). Several edited volumes appeared in the literature, with Cenoz, Hufeisen and Jessner leading others in these developments. Among the edited volumes published, we find Cenoz and Jessner (2000) *English*

in Europe: the acquisition of a third language; Cenoz, Hufeisen and Jessner (2001a) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives;* Cenoz, Hufeisen and Jessner (2003) *The Multilingual Lexicon.*

The L3 network established in the 1990s grew in strength and formally became the International Association of Multilingualism in 2003. It also became an official Research Network within AILA in 2006. In the meantime, international conferences on Third Language Acquisition and Multilingualism have continued to be organized every two years, and the number of attendees has grown with each event. Having reached this point, research on CLI and multilingualism was clearly no longer confined to traditional perspectives about CLI initially developed for second languages. Non-native language influence had begun to be examined from various angles through a number of fresh questions specifically tailored to multilingual, and not bilingual, phenomena. Among the work that specifically dealt with instances of non-native transfer we find Alcantarini (2005); Bardel and Lindqvist (to appear); Bouvy (2000); Cenoz (2001); De Angelis (2005a; 2005b; 2005c); De Angelis and Selinker (2001); Fouser (2001); Gibson and Hufeisen (2003); Gibson, Hufeisen and Libben (2001); Hammarberg (2001); Odlin and Jarvis (2004); Ringbom (2001, 2002, 2003).

In the first half of the current decade, we also find a substantial amount of research on the multilingual lexicon, word selection problems and tip of the tongue states, where questions on the use of prior knowledge in comprehension and production processes remained central (Cenoz, Hufeisen and Jessner 2003; Dewaele 2001; Dijkstra 2003; Ecke 2001, 2003; Festman 2004, 2005; Herwig 2001; Jessner 2003; Schönpflug 2000, 2003; Singleton 2003; Van Hell and Dijkstra 2002; Wei 2003a, 2003b).

Other lines or inquiry of relevance to multilingualism and the use of prior knowledge in the learning process include studies on immersion programmes and education (Aronin and Toubkin 2002; Cenoz, Hufeisen and Jessner 2001b; Clyne, Rossi Hunt and Isaakidis 2004; Cummins, 2001), research on the additive effects of bilingualism in plurilingual situations (Brohy 2001; Cenoz 2003; Cenoz and Hoffmann 2003; Keshavarz and Astaneh 2004; Sagasta Errasti 2003; Sanz 2000), research on metalinguistic development (Charkova 2004; Jessner 2005; Kemp 2001; Lasagabaster 2000; Lasagabaster 2001) and early trilingualism (Barnes 2006; Dewaele 2000, 2007; Edwards and Dewaele 2007; Hoffmann 1985; Quay 2001). Last but not least is research on non-native languages within the domain of syntax (Flynn, Foley and Vinnitskaya 2004; Leung 2005) and pragmatics (Safont Jordà 2005a, 2005b).

The new millennium has just started, and the number of studies on multilingualism and CLI is already considerable in comparison to those published in the previous decades. While it is hard to predict future research directions,

one conclusion seems warranted: it is highly improbable that CLI research will stop focusing on multilingual phenomena in the years to come. Research on non-native language influence has become central to future developments in the field and has substantially changed the view that language transfer is a phenomenon mostly concerned with two languages (see De Angelis 2007). As we have seen, these developments did not happen overnight. It took the efforts of several researchers to reach the current state of knowledge about and awareness of multilingual phenomena and CLI. The L3 network in particular has been instrumental in bringing together people, ideas and research projects over the years. While progress, advancement and innovation are the result of many people's efforts, one thing is sure: without the L3 network, progress would have been much slower to appear.

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The role of prior knowledge in L3 learning and use

Further evidence of psychotypological dimensions

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This chapter reports on two studies. The first study examines the learning of French as an L3 by Anglophone students of French whose L2 was Irish and by balanced bilinguals. The second study investigates German as L3 with reference to two groups of English-speaking participants who have Irish as a longstanding L2. The studies show the psychotypological factor to be an important component of participants' cross-linguistic consultation when faced with challenges in their L3.

Keywords: crosslinguistic influence, psychotypology, L2 factor, trilingualism, Irish language

1.   Introduction

Ireland has a long tradition of bilingual education. Over the years, studies of bilingualism in the Irish context have contributed to the general international debate and research agenda on bilingualism. By contrast, the research output on trilingualism and multilingualism in Ireland to date is relatively small. One might mention in this connection some early work on L2→L3 transfer (Singleton 1987; Singleton and Little 1984/2005), Hélot's (1988) case study of early trilingual language acquisition in children, Harris and Conway's (2002) study on the relatively recent initiative of teaching an L3 in Irish primary schools, and a number of studies focusing on the contribution of bilingualism to language awareness and strategy deployment in L3 learning (Griffin 2001; Ní Ghréacháin 2006; Ó Laoire 2001). However, by and large, while researchers elsewhere directed their attention to

uncovering under what conditions and in what way prior experience and knowledge of an additional language might influence subsequent acquisition processes; little research in Ireland has until recently explored this question.

The Third International Conference on Trilingualism and Third Language Acquisition was held in Tralee, Ireland in 2003; it was during this conference that the International Association of Multilingualism was founded. The two studies reported in this paper were conducted as a direct consequence of the establishment of a collaborative connection in the course of preparing the Tralee conference (Ó Laoire and Singleton 2006; Singleton and Ó Laoire 2006a, 2006b). They point to and represent the emergence of research in Ireland into the influence of knowledge of the Irish language in multilingual learning contexts.

2.   Bilingualism and third language education in Ireland

In secondary schools in Ireland, where the research reported here was conducted, the curriculum provides for the study of English (typically L1), Irish (typically L2) and generally one or two other modern languages for a period of three to five years. All students are also required to study English and Irish throughout the period of their primary schooling. Research conducted elsewhere tending to show that learning a minority language may have a positive effect on third language learning in educational settings (e.g. Brohy 2001; Klein 1995; Sagasta Errasti 2001) could be considered to be of particular interest in the Irish context; the situation of Irish, in spite of its officially being the Republic of Ireland's first national language, has much in common with minority language situations elsewhere, since Irish is the L1 of no more than 3% of the population of the state. In other such contexts, students with a competence in two languages (including a minority language) who have passed beyond a certain threshold, and are thus in a position to benefit from their bilingualism (Cummins 1979), often achieve very good results in a third language (e.g. Lasagabaster 1998; Muñoz 2000).

English is the medium of instruction for all subjects (except Irish) throughout Irish second-level education, except in a relatively small number of Irish-medium schools (*Gaelcholáistí*). Typically, students study a continental language (French, German, Spanish or Italian) as an L3, having already received instruction over at least eight years in English as L1 and Irish as L2. Thus one would expect some cross-linguistic influence from English and also from Irish as learners engage in the learning of their L3. The well-foundedness of this expectation was investigated in the studies reported below.

3.   Crosslinguistic influence: Psychotypology and the 'L2 factor'

Much recent research has looked at the operation of cross-linguistic influence in situations, like Ireland, where more than two languages are at the language user's disposal as they approach the study of a third language (e.g. Cenoz and Genesee 1998; Cenoz and Jessner 2001; Cenoz, Hufeisen and Jessner 2001; Hufeisen 2000). Some variables which have been claimed to be relevant in such situations are: level of proficiency, level of metalinguistic awareness, the age factor and the degree of formality of the context of language use.

One dimension of this kind of research is the debate on the question of whether the critical factor in the resorting to language *y* when using language *z* is (a) that the language user perceives language *y* as typologically closer to language *z* than any other available language or (b) that language *y* is, in common with language *z*, a non-native language. We can label the former of these perspectives (see e.g. Kellerman 1983; Ringbom 1987; Singleton 1999) the *psychotypological perspective* and the latter (see e.g. Hammarberg 2001; Williams and Hammarberg 1998) the *'L2 factor' perspective*.

With respect to psychotypology, Sjöholm, for example (1976, 1979), found that Finns whose native language was Swedish tended to make errors in English which had their origins in Swedish, but that Finnish-speaking Finns' errors in English also reflected Swedish – in this case their L2. In both cases learners had recourse to the language they perceived as typologically less distant from English, even if this language was not their L1. Similar kinds of results were obtained in other studies (see e.g. Singleton 1987; Singleton and Little 1984/2005).

As regards the L2 factor perspective, Hammarberg claims that L2 status is an important conditioning factor in respect of transfer into L3. According to this view, "there appears to be a general tendency to activate an earlier secondary language in L3 performance rather than L1" (Hammarberg 2001: 23). Hammarberg offers two possible explanations for the purported importance of this factor:

– A different acquisition mechanism for L2s as opposed to L1s, and hence a reactivation of the L2 type mechanism in L3 acquisition.
– A desire to suppress L1 as being 'non-foreign' and to rely rather on an orientation towards a prior L2 as a strategy to approach the L3.

(Hammarberg 2001: 36–37)

4. The two studies

We report in this paper on two studies which were carried out with a view to shedding light on the above issues. The first study, **Study A**, looked at the learning of French as an L3 by (i) Anglophone students of French whose L2 was Irish and (ii) balanced bilinguals in English and Irish. Our starting hypothesis was that, given the greater lexical proximity (and perceived proximity) between English and French as opposed to that between Irish and French, cross-lexical influence from English would far outstrip any such influence from Irish.

The second study, **Study B**, is a study of learner German involving two groups of English-speaking participants who have German as their L3 and who have Irish as a longstanding L2. The focus of the study in this instance is on two areas where Irish morphosyntax is closer to German than to English, namely, word order in non-finite purpose clauses and morphological inflection in noun phrases following prepositions. The second study aimed to explore whether Irish is facilitative in these areas with respect to German L3 production and whether learners are aware of such facilitation and can consciously exploit it. It was hypothesized in this connection that there would be more evidence of Irish-based transfer in this case than in Study A. Such an outcome would be explicable is psychotypological terms – i.e. in terms of perceived similarities between Irish and German – but, of course, since Irish is for most subjects the L2 – would not rule out the possibility of a role for the 'L2 factor'.

5. Study A

5.1 The typological background

The languages under scrutiny in Study A, English, Irish and French, all belong to different language families. English is a Germanic language, Irish a Celtic language and French a Romance language. However, the languages are not equidistant from each other. The lexical consequences of the Norman invasion of England in the eleventh century and of the continuing close relations between England and France during the Middle Ages, plus the fact that English, like French, borrowed a considerable number of words directly from Latin (and also from Greek) mean that "les vocabulaires français et anglais comptent des milliers de « mots communs »" (Van Roey, Granger and Swallow 1988: ix). Pei (1967: 92), referring to Robertson (1954) notes that of the 20,000 words in "full use" in English three-fifths are of Latin, Greek and French origin. Claiborne (1990: 104–105), for his part, estimates that "between 1100 and 1500 A.D. more than ten thousand French

words passed into the English vocabulary" and that of these "75 percent are still in use." Such is the extent of lexical commonality between English and French that some commentators have gone so far as to call English a "semi-Romance" language or even (facetiously) "French badly pronounced" (Barfield 1962:59; cited by McArthur and Gachelin 1992:873).

The Romance component of the Irish lexicon is significantly more restricted. Some loanwords from ecclesiastical Latin were borrowed by Irish following the Christianization of Ireland. It should be noted, though, that, apart from being few in number, these words became assimilated to the point where their resemblance to forms in contemporary Romance languages is barely discernible – e.g.: *beannacht* ('blessing' < Latin *benedictio*), *coisreacan* ('consecration' < Latin *consecratio*), *sagart* ('priest' < Latin *sacerdos*). With regard to French influence, after the arrival of the Anglo-Normans in Ireland in the twelfth century, French became one of the major languages of medieval Ireland together with Irish, English and Latin (cf. Picard 2003), and French influence can be seen in the phonology of some forms in certain varieties of Irish (see e.g. Ó Rahilly 1952). In the lexical domain hundreds of Irish lexical borrowings from French have been identified (see e.g. Risk 1969). However, precisely the point is that French loanwords in Irish are counted in hundreds, whereas in English they are counted in thousands.

On the basis of the foregoing, it is clear that in lexical terms the distance between English and French is considerably less than that between Irish and French. Moreover, it is also obvious from the experience of generations of teachers of French working with English speakers and teachers of English working with French speakers that the cognates shared by English and French are rapidly noticed by L2 learners – hence the perceived need for dictionaries of French-English 'false friends' (see e.g. Kirk-Greene 1981; Thody and Evans 1985; Van Roey, Granger and Swallow 1988).

5.2   General overview of the study

The study was conducted in two parts. In the first part (first reported in Singleton and Ó Laoire 2006a) influence from English was found to be overwhelmingly predominant. Our view was that this finding was explicable in psychotypological terms, given the facts outlined in the previous section. However, we had to acknowledge that it might relate to the fact that English, as our subjects' L1, was more entrenched than Irish. Accordingly, it seemed to us that a supplemental investigation was required involving informants who were balanced bilinguals (in Irish and English), in order to neutralize the possible role of an L1 factor.

The second part of the study (first reported in Singleton and Ó Laoire 2006b) essentially replicated the first. Our reasoning was that if the balanced bilingual subjects also privileged English as a source of cross-lexical borrowing in solving lexical problems in French, then our psychotypological explanation of our first set of results would be on firmer ground; if, on the other hand, it transpired that our bilingual subjects resorted as much to Irish as to English – or indeed more so – our psychotypological explanation would be thrown into disarray.

5.3   Participants

The first part of the study was conducted in January 2004 in classes (labelled here Class A, Class B and Class C) of three secondary schools in the south-west of Ireland, involving 42 learners in all. All informants were in the final year of a streamed higher course in French and had been studying the language for four and a half years at least. The test and introspection task were completed in one class period in each case.

The following is a profile of the schools involved:

Class A [N=13] was in a mixed English-medium comprehensive school with a population of c.500 located in a small village. Each student had been studying French for four and a half years at least and at that point had opted to study French in a higher-level stream. Each student had been studying Irish for at least twelve and a half years.

Class B [N=15] was in a large mixed English-medium secondary school with a population of 1,200 located in a large town [30,000+]. In other respects the learners' profile was similar to that outlined in respect of Class A.

Class C [N=14] was in a small secondary school for girls located in a small town [12,000+]. These students were part of an Irish immersion stream, studying all subjects, including French, through the medium of Irish.

The second part of the first study took place approximately a year later and was conducted with 24 pupils from classes in two separate secondary schools (labelled here Class D and Class E respectively). All participants were in their late teens and were in the final year of a streamed higher course in French, which they had all been studying for at least four and a half years. The two classes in question may be characterized as follows:

Class D [N=11] was based in an Irish-medium school located in the south-west Gaeltacht region (Corca Dhuibhne). All the pupils in the group had been studying French for four and a half years at least and had opted to study

French in a higher-level stream. All were identified by the class teacher as balanced bilinguals and as inhabitants of the Gaeltacht region in question.

Class E [N=13] was based in a small Irish-medium secondary school in Connemara. The pupils' profile in relation to experience of French resembled that of the pupils in Class D. Again, all were identified by the class teacher as balanced bilinguals and as inhabitants of the Gaeltacht region in question.

5.4   Methodology and instrumentation

The same research instruments were used in both studies and set two tasks. The first of these required participants to read twenty French sentences and to supply a synonymous and an antonymous expression for an underlined word in each of the sentences in question. A short extract from the relevant instrument is displayed below.

---

1. Maman a <u>perdu</u> ses clés.

> EXPRESSION SYNONYME:
> EXPRESSION ANTONYME:

2. Quand il a vu la personne qui arrivait, il a crié de <u>joie.</u>

> EXPRESSION SYNONYME:
> EXPRESSION ANTONYME:

3. Les voitures roulent assez <u>vite</u> dans ce quartier.

> EXPRESSION SYNONYME:
> EXPRESSION ANTONYME:

The language level of the text was designed to be broadly in line with our participants' proficiency in French. However, it was expected that they would find the requirement to produce synonyms and antonyms fairly challenging and that this would trigger a conscious lexical search in which the resources of other languages at their disposal would also be consulted.

An introspection instrument was also used. Having completed the task of providing synonyms and antonyms, participants were invited to introspect on their lexical searches. They were first asked to translate the underlined target lexical item into Irish or English, in order that we might be able to gauge whether the language of the earlier task was indeed broadly at their level. They were asked subsequently to state for each stimulus word whether they had found the task of supplying a synonym and/or an antonym difficult or easy, and to say something

about how they had gone about the relevant lexical search. In the case of the second study, instructions and responses were given entirely in Irish. The following extract from the introspection instrument illustrates the procedure.

Below you will find a complete list of the expressions for which you were asked to provide synonymous and antonymous expressions. In each case please (i) translate the expression in question into English or Irish, (ii) indicate whether or not you found the task of supplying a synonym and/or an antonym difficult by ringing the description that applies, and (iii) say something (in English or Irish) about how you went about searching in your mind for an appropriate expression.

1. <u>perdu</u>

TRANSLATION:

SYNONYM: difficult/not difficult

Comments on search:

5.5   Results

The data analysis focused (i) on elements elicited by the task requiring the provision of French synonyms and antonyms which showed some influence from either English or Irish and (ii) on elements elicited by the introspection task which contained mention of English or Irish. Illustrative examples of the different kinds of elements in question are given below.

> **Examples of indications of English influence in data from the French synonym/antonym provision task in the first part of Study A**
> *expensif*: offered as synonym for *cher* ('dear'), non-existent in French; cf. English *expensive*
> *despisé*: offered as synonym for *déteste* ('detest'), non-existent in French; cf. English *despise*
>
> **Examples of indications of English influence in data from the French synonym/antonym provision task in the second part of Study A**
> *disrespecte*: offered as antonym for *respecte* ('(I) respect'), non-existent in French;
>   cf. English *disrespect*
> *failûre*: offered as antonym for *succès* ('success'), non-existent in French; cf. English *failure*
>
> **Examples of indications of Irish influence in data from the French synonym/antonym provision task in the first part of Study A**
> *conraifne*: offered as synonym for *perdu* ('lost'), non-existent in French; cf. Irish
>   *ní chuimhnigh* ('did not remember')
> *troblod*: offered as synonym for *guerre* ('war'), non-existent in French; cf. Irish
>   *triobloid* ('troubles')

Examples of indications of Irish influence in data from the French synonym/antonym
provision task in the second part of Study A
crua : offered as synonym for*complexe* ('complex'), non-existent in French; cf. Irish
    crua ('difficult')
log: offered as antonym for *durs* ('harsh'), non-existent in French; cf. Irish *lag* ('weak')

Examples of references to English in introspection data elicited in the first part of Study A
'It sounds like the english so that's what I went by'
'thought of it in english and translated'

Examples of references to English in introspection data elicited in the second part of Study A
'cosúil le focal Béarla' ('like the English word')
'Smaoineamh as Béarla' ('Thinking in English')

Examples of references to Irish in introspection data elicited in the first part of Study A
'I couldn't think of any word. I thought about words in english Irish and french'
'I kept thinking of the Irish word'

Examples of references to Irish in introspection data elicited in the secondpart of Study A
'smaoinigh mé ar an Gaeilge' ('I thought of the Irish')
'Smaoinigh mé as Gaeilge ar dtús' ('I thought in Irish at first')

When the above elements were quantified in both studies, it emerged that English
predominated massively over Irish in terms both of percentages of indications of
cross-linguistic influence in the synonym/antonym provision task and in terms
of percentages of references to the respective languages in the introspection task.
The overall figures are set out below.

ELEMENTS INDICATING ENGLISH/IRISH INFLUENCE IN FRENCH SYNONYM/ANTONYM PROVISION		
	Study A, Part I	**Study A, Part II**
English:	46 (93.9%)	15 (79%)
Irish:	3 (6.1%)	4 (21%)
REFERENCES TO ENGLISH/IRISH IN INTROSPECTION TASK		
	Study A, Part I	**Study A, Part II**
English:	359 (98.9%)	48 (92%)
Irish:	4 (1.1%)	4 (8%)

The above results suggest that, in relation to the first part of the study, the L2 factor was a fairly minor component of participants' cross-linguistic consultation when faced with challenges in their L3. Despite the fact that all participants in the first part of the study had long experience of Irish and that some were indeed in an Irish immersion situation at school, Irish elements figure *in toto* as just over 6% of indications of cross-lexical consultation in the synonym/antonym provision task and mentions of Irish constitute overall only about 1% of references to English/Irish in the introspection task.

The results of the second part of the study are not dissimilar. They show that of the bilinguals' two L1s, English was drawn upon very markedly more often than Irish in resource expansion processes triggered by challenges with respect to use of their L3, French. Irish elements figure in total as only about a fifth of indications of cross-lexical consultation in respect of the synonym/antonym provision task and as less than a tenth of references to English/Irish in the introspection task. It is worth recalling that these participants are *balanced* bilinguals in Irish and English and that these findings were elicited in Irish-speaking regions, in Irish-medium schools and in a context where the instructions for the task were given in Irish.

6.   Study B

6.1   The typological background

Study B (first reported in Ó Laoire and Singleton 2006), it will be recalled, involved participants with a knowledge of English, Irish and German. In broad terms, German is considerably closer to English than to Irish, since, of course, German and English are both members of the Germanic group of languages. However, this general comment should not be over-interpreted. As we have seen, in lexical terms English is actually more Romance than Germanic. Katzner (2002:42f.) notes that the Germanic lexical core of English – i.e., words coming down to us from Old English – is composed of fewer than 5,000 items. He points out that these constitute "the basic building blocks' of English but also notes the 'wealth of contributions from … other sources" (see above, previous section). Moreover, Germanic elements of English vocabulary often look very different from their German cognates because of the effects of various phonological changes. How many English-speaking learners of German immediately recognize the formal connection between, for example, *doch* and *though*, *(er)zählen* and *tell* or *Zeichen* and *token*?

With regard to morphosyntax, English is in a number of respects very different from German. Unlike German, its verb forms are mostly not inflected for person (with the single exception of the third person singular *-s* in the present tense); it is devoid of grammatical case inflections in noun phrases (with the single exception of the genitive case inflection *'s/s'*); and its word order is in general not affected by the category of clause in question. In all of these dimensions Irish, despite being a Celtic rather than a Germanic language, in fact resembles German more than English does. We shall see this illustrated in some detail in what follows, where we focus on non-finite clauses of purpose and morphological inflection in noun phrases after prepositions.

In non-finite clauses of purpose in English the word order with respect to the main verb and direct object remains in line with that to be found in simple declarative sentences. That is to say, the direct object follows the main verb. Thus:

> *I'm <u>buying books.</u>*
> *I'm here to <u>buy books.</u>*

In Irish on the other hand, in non-finite purpose clauses, unlike in simple declarative sentences, the direct object precedes the main verb. For example:

> *Tá mé ag <u>ceannach leabhar.</u>*
> (Lit. 'Am I at buying books' = 'I'm buying books')
> *Tá mé anseo chun <u>leabhair a cheannach.</u>*
> (Lit. 'Am I here in.order books for buying' = 'I'm here to buy books')

In German, the word order in non-finite purpose clauses likewise does not follow that of simple declarative clauses, where the main verb precedes the direct object, but instead echoes the Irish pattern whereby the main verb is placed after the direct object. For instance:

> *Ich kaufe <u>Bücher.</u>*
> (Lit. 'I buy books' = 'I'm buying books')
> *Ich bin hier, um <u>Bücher zu kaufen.</u>*
> (Lit. 'I am here in.order books to buy' = 'I'm here to buy books')

Concerning morphological inflection in noun phrases after prepositions, in English this simply does not happen. The noun phrase has the same form after a preposition as in the role of subject of a sentence. Thus:

> *<u>The stone</u> is beautiful.*
> *The lizard is <u>on the stone</u>.*
> *<u>The box</u> is empty.*
> *Put the book <u>in the box</u>.*

In Irish inflection patterns of the noun are quite complex. Depending on the dialect (there are three main dialects: Munster, Connaught and Ulster), the usage and the particular noun in question, the spectrum of inflection possibilities range from a straightforward system with one case in the singular and plural to more complex system involving the five cases: nominative, accusative, vocative, genitive and dative. Basically, there are three morphological devices or various interactions of these devices to form cases, including initial and end mutations, slendering or broadening and consonantal extension (Ó Siadhail 1989: 148–159). Cases are also marked by inflections of the noun, definite article (there is no indefinite article in Irish), as is demonstrated in the following:

> *cathair* (n.) = city
> *mór* (adj)= big
> *an <u>ch</u>athair mhóir* = the big city (Nominative/ Accusative= initial
>   mutation > lenition)
> *i gcathair mhór* = in a big city (Dative= initial mutation > eclipsis)
> *glór na cath<u>rach</u> móire* = the din of the big city (Genitive = end mutation in n.
>   + adj and mutation of definitive article an>na)

Noun phrases are often formally different after prepositions, as compared with their form in subject role, in the sense that the noun may undergo initial mutation. This sometimes takes the shape of eclipsis, the 'hiding' of the initial consonant with another, as is illustrated below.

> *Tá <u>an chloch</u> go hálainn.* (The initial consonant of *chloch* is /x/).
> (Lit. 'Is the stone beautiful' = 'The stone is beautiful')
> *Tá an laghairt <u>ar an gcloch</u>.* (The initial consonant of *gcloch* is /g/).
> (Lit. 'Is the lizard on the stone' = 'The lizard is on the stone')

In other instances the mutation takes the form of lenition, or the 'softening' of the quality of the initial consonant, as in:

> *Tá <u>an bosca</u> folamh.* (The initial consonant of *bosca* is /ɓ/).
> (Lit. 'Is the box empty' = 'The box is empty')
> *Cuir an leabhar <u>sa bhosca.</u>* (The initial consonant of *bhosca* is /v/).
> (Lit. 'Put the book in.the box' = 'Put the book in the box').

With regard to German prepositions, these often occasion changes in case – i.e., changes in the form of accompanying articles and adjectives as compared with the subject form (nominative case) and in some instances changes in the form of the noun itself. German has three genders (masculine, feminine and neuter) and four cases (nominative, accusative, dative and genitive). The different cases

are associated with different sentential roles (subject – nominative, direct object – accusative, indirect object – dative, modifier of another noun – genitive) but also by prepositional governance. Cases are marked by a range of inflections of the articles and also of adjectives (e.g. *ein guter Mann* – 'a good man', nominative; *einen guten Mann* – 'a good man', accusative). Sometimes the noun itself may be inflected: genitive forms of masculine and neuter nouns are always inflected for this case (e.g. *der Vater* – 'the father', nominative; *des Vaters* – 'the father's', genitive), and dative forms of masculine and neuter nouns may be inflected for this case (e.g. *das Kind* – 'the child', nominative; *dem Kind*– 'to the child', dative). To return to prepositional governance, some prepositions always trigger the accusative case (e.g. *durch* – 'through'), others always trigger the dative (e.g. *aus* – 'out of'), and still others may trigger the accusative or the dative, depending on the context (e.g. *in mein Haus* – 'into my house', accusative; *in meinem Haus* – '(with)in my house', dative).

Some further examples of prepositional triggering of dative and accusative inflection follow.

> *Der Stein* (nominative) *ist schön.*
> ('The stone is beautiful')
> *Die Echse sitzt auf dem Stein* (dative).
> (Lit. 'The lizard sits on the stone' = 'The lizard is on the stone')
> *Der Kasten* (nominative) *ist leer.*
> ('The box is empty')
> *Steck das Buch in den Kasten* (accustaive).
> ('Put the book in the box')

Given the clear similarities between Irish and German and their common distance from English in respect of the above-outlined domains, we speculated that learners of German might consciously or unconsciously perceive Irish to be a possible support in these instances, and we further speculated that this perception might be more firmly established in learners with more exposure to and experience of Irish.

6.2   General overview of the study

Study B looked at two groups of English-speaking participants for whom German is their L3 and who again have Irish as their L2 or (in a few instances) as a second L1. The focus of Study B was on the two above-discussed areas where Irish morphosyntax is closer to German than to English: word order in non-finite purpose clauses and morphological inflection in noun phrases following

prepositions. We hypothesized that those of our subjects who were being immersed in Irish at school and/or had Irish as a second L1 would be better than learners of Irish as an L2 in English-medium educational setting at dealing with the word order of German non-finite purpose clauses and the morphology of German noun phrases following prepositions.

Such an outcome would be explicable is psychotypological terms – i.e. in terms of perceived similarities between Irish and German. However, given that Irish is the L2 in most cases here, our design in this instance did not strictly allow us to address the specific issue of whether the psychotypological factor is stronger than the L2 factor.

6.3   Participants

The participants in this study were 32 native speakers of English who were learning German as L3. They fell into two groups (labelled Group A and Group B below), which can be characterized as follows:

Group A [N=22] was comprised of students who were studying German as an L3 through the medium of English and whose L2 was Irish.
Group B [N=10] was comprised of participants in an Irish-medium programme, being taught most subjects, including German, through the medium of Irish; for most of these subjects Irish was the L2, but for four of them it was a second L1.

Apart from significantly increased exposure to the Irish language in the case of the Group B, the learners' profile was broadly similar across the two groups. All were male, attending the same school, (a large boys' secondary school with a population of 1100 students in a large city in the south-west of Ireland) and had the same teacher of German. All had been studying German for at least four years. While all students were native speakers of English, four students in Group B were from English-Irish bilingual families. All pupils except one had been studying Irish for around eleven years.

6.4   Methodology and instrumentation

The participants in Study B were presented with two tasks. The first task required them to supply a noun or pronoun with a verb (provided in parenthesis) in correct word order in five non-finite purpose clauses in German, as indicated below.

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1. Willi hat kein Brot. Er muss später ausgehen um _____ (kaufen)
2. Angelika will Englisch lernen. Sie wird in zwei Monaten nach Irland fahren, um _____ (studieren).
3. Hans hat seine Bücher vergessen. Er muss wieder nach Hause laufen, um _____ (holen).
4. Ich habe meinen Hund verloren. Ich würde alles machen _____ (finden).
5. Sie will ihre französischen Freunde sehen. Nächste Woche wird sie nach Paris fahren, um _____ (besuchen).

It was hypothesized that participants might find the resource of knowing non-finite clauses of purpose in Irish – where word order is similar to the German version thereof – facilitative in relation to producing the required word order in German.

The second task again presented participants with five incomplete sentences and required them in each instance to supply the appropriately inflected form of the definite article following a given preposition to express the notion indicated in the drawing accompanying each test sentence. This task is illustrated below, using test sentence 3.

3.   Die Dame kommt _____ Kirche (aus)

It was speculated that this task might trigger cross-linguistic consultation – specifically of Irish, where broadly parallel morphological inflection exists.

An introspection instrument was also used. Having completed the above tasks, the participants were asked to supply a short profile of themselves as learners and were invited to introspect on their production. They were first asked to translate each sentence into Irish or English, in order that we might be able to gauge whether the language of the task was broadly at their level. They were asked subsequently to state for each of the sentences whether they had found the task difficult or easy. They were equally invited to reflect on which language (English or Irish) helped them in completing the sentences. The following extract from the introspection instrument illustrates the procedure.

How did you get on?

Thank you for agreeing to do these short exercises.

Now we would like to ask you to answer the questions in Section A and B honestly and fully.

Section A

Male _____   Female _____

1. How long have you been learning German   _____
2. How do you rate yourself as a learner of German? _____
3. How long have you been learning Irish?   _____
4. How do you rate yourself as a learner of Irish?   _____
5. Languages spoken at home?   _____
                                                      _____
6. How did you find this short exercise?   _____
7. How long did it take you to complete it?   _____

Section B

For each sentence you have just completed:

a. translate the sentence into English or Irish
b. state whether you found the exercise difficult or easy
c. state which of the languages you study helped you most
    in making the changes and why

1. Willi hat kein Brot. Er muss später ausgehen um _____ (kaufen)

Translation:

Easy/Difficult (please circle)

Comment:

6.5   Results

The data analysis focused on both groups' production of word order in non-finite clauses of purpose and on their production of post-prepositional forms of the definite article. In the case of the non-finite clauses of purpose, a distinction was made between informants' production of correct word order and their production of all or other lexico-grammatical elements in the target clauses. For example, an informant's production of *Willi hat kein Brot. Er muss später ausgehen* *um Brot kaufen* was assigned a score of 1 for correct word order and a score of 0

for detail (omission of *zu*). A similar distinction was drawn in relation to learners' production of inflected forms of the definite article. In this latter instance, appropriate case was scored as correct for any gender of the noun. Thus, *aus* requires the dative case, so that the required solution to the example above is *Die Dame kommt aus der Kirche, Kirche* being feminine. However, the solution *aus dem Kirche*, which would be the form required if *Kirche* were masculine or neuter, was also deemed acceptable for the purposes of this part of the analysis. Those elements elicited by the introspection task which contained mention of English or Irish, were also recorded and analysed. Illustrative examples of learners' comments under this heading are given later.

Word Order (WO)

The English-medium students (N=22) supplied 95 examples of non-finite purpose clauses exhibiting correct word order out of a possible 110 (22 x 5 sentences), which constitutes an accuracy rate of 86.36%, the average score being 4.31 out of 5.0. This finding is remarkable, especially in view of the fact that scores for overall lexico-grammatical accuracy (spelling, punctuation, pronouns etc) were very low. Informants supplied only 34 fully accurate productions out of a possible 110, which constitutes a level of absolute accuracy of 30.9%. To illustrate this further, it is worthy of note that three learners scored 5.0 for WO and 0 for detail, with a further five informants scoring 5.0 for word order and 1.0 for detail. The scores for WO produced by students in the Irish-medium stream (N=10) were slightly higher. Here informants produced a 100% rate of accuracy as opposed to 16 fully accurate productions, which constitutes a level of absolute accuracy of 32% (16/50), with the mean score being 2.90. The vast majority of both sets of informants rendered an accurate translation for all the sentences and reported the task generally as being easy, which indicates that the language of the task was at least perceived as broadly at their level.

When a t-test was conducted to test for significance of difference between the mean scores for both groups, the resulting t-value indicated no significant difference between the two groups (p = 0.1166). Accordingly, our notion that the Irish-stream participants might do better in this domain was not confirmed. The important finding here, however, is that both groups scored very well in WO, even though their ability to produce fully accurate clauses was limited. This suggests, perhaps, that this particular task, deliberately designed to probe crosslinguistic influence from the L2 to the L3 in WO order non-finite clauses of purpose, may have in fact uncovered just such an effect.

Case

Informants' ability to supply the appropriately inflected form of the definite article yielded a rather different finding. Here the English-medium students (N=22) supplied 64 productions of correct case out of a possible 110 (22 x 5 sentences), giving a 58.8% value for correctness, with a mean of 2.90 out of 5.0. These informants supplied 49 fully accurate productions out of a possible 110, which constitutes a 44.5% level of accuracy. Here also there was a greater consistency in both scores (case + detail) with 15 students having similar scores (−1/+1) in both. The case scores for students in the Irish-medium stream were lower. Here informants produced a 50% rate of accuracy and again 16 fully accurate productions, which constitutes a level of absolute accuracy of 32% (16/50) and yields a mean score of 2.40. When both sets of data for case were subjected to a t-test, no significant difference between the groups emerged (p = 0.49).

To sum up these quantitative results, there seems to be evidence that these learners' knowledge of WO in Irish non-finite purpose clauses may have a facilitative effect on their capacity to produce appropriately ordered non-finite purpose clauses in German. On the other hand, the additional exposure to Irish experienced by Group B does not differentiate them significantly from Group A – although this may simply be because the numbers of participants are low and the Group A scores are already very high. With regard to case, both groups performed more or less equally badly, and there is not really any sign that morphological changes in Irish after prepositions had any facilitative effect in either case.

Introspective data

To return to the issue of WO, though there is evidence of some crosslinguistic influence from the L2 to L3 in these informants' production of WO in the L3, it does not appear to be the case that learners are metalinguistically aware of it. While 50% of informants included some comments on the process of performing the exercise, these were mostly short reflections such as

> *Nor sure about the gender*
> *Couldn't remember plural*
> *I guessed*
> *The translation was easy*

There were fewer comments on the facilitative role of English or Irish in completing the task. This is surprising, given the fact that informants were, in fact, invited to state which of the languages they had studied had assisted

them most in the task completion. Eight informants (25%) made some reference either to English or Irish or to both English and Irish. In all there were 21 references to English and 5 references to Irish. The references to English revolved mainly around the facilitation provided by cognates – e.g.

> *English words resemble German words*
> *English similarities in words lernen and Monate*

One informant, who rated himself as a '*very poor learner of Irish,*' commented, however:

> *Not hugely English but touching on cases in Irish classes helped understand the German better.*

Regarding Irish one informant commented in the case of WO,

> *a similar structure in Irish*

The only learner who chose to translate the sentences into Irish appended the comment *ar + an = urú* (the preposition *on* + the article + eclipsis) after *auf dem Tisch,* indicating that he had deliberately drawn on a parallel Irish morphosyntax in production. Only three participants reported that they were aware of possible help in identifying similarities between Irish and German. Thus, if these learners were exploiting the resources of their knowledge of Irish morphosyntax in producing German it seems that they were largely doing so unconsciously.

We had speculated that participants might find the resource of knowing nonfinite clauses of purpose in Irish – where word order is similar to the German version thereof – facilitative in relation to producing the required word order in German. Our preliminary conclusion from our findings is that our hunch in this matter was confirmed. Informants' ability to produce correct word order in German would appear to have drawn considerably on their knowledge of a similar structure in Irish. Both groups of informants scored very well in WO, even though their ability to produce other lexico-grammatical elements accurately in the target clauses was limited.

Our inference of Irish influence in this connection is strengthened by the fact that English-speaking learners of German without Irish seem to have considerable problems with WO in subordinate clauses. This theme of English speakers' problems with German WO has a very long history. Shears, for example, writing in 1947 from an American standpoint, had the following to say:

> Word order, in particular, deserves the renewed attention of teachers. In spite of
> enthusiastic instruction and continuous refinement of methods, German still re-
> mains a difficult subject in the curriculum, and this is largely due to its word-pat-
> tern. The stumbling block … is the German practice of separating word-groups
> which to our way of thinking belong together.   (Shears 1947: 103)

In confirmation of the above, Pienemann's (1998) study of an English L1 speaker
learning German reveals that his subject's attempts at subordinate clause produc-
tion were entirely devoid of the V-END WO type (pp. 118–122) examined too in
our own study. Pienemann postulates that for learners coming to German from
an SVO language such as English V-END will always be the very last aspect of
German WO to be acquired. Support for this comes from a very recent Austra-
lian study (Jansen 2008) of English-speaking learners of German, which yielded
results fitting Pienemann's predictions (in this as in other dimensions) 100%. In-
terestingly, if our own participants were receiving help from Irish in somehow
"beating" the normal acquisition order in this connection, they were by and large
not, according to our introspective data, aware of this.

The fact that, contrary to our expectations, there was no real difference be-
tween the two groups in terms of WO production despite Group B's much more
extensive exposure to Irish may have to do with the closeness of Irish to German
in respect of non-finite purpose clause word order. The similarity of Irish to Ger-
man in this connection is so obvious that its (apparently largely unconscious)
perception would probably not be dependent on the degree of length or intensity
of experience of Irish. Hence, perhaps, the finding that the Irish-medium group,
which included Irish-English simultaneous bilinguals, did not significantly out-
score the English-medium group on WO.

With respect to morphology in prepositional phrases, as we have seen, both
groups performed more or less equally badly. There was in this case no indica-
tion that participants' knowledge of morphological changes after prepositions in
Irish had any real facilitative effect on production in the L3. Our explanation of
this finding is that – in contradistinction to the case of WO in non-finite pur-
pose clauses – the similarities between Irish and German post-prepositional noun
phrase morphology are not especially striking. There *is* morphological modifi-
cation in both cases, but whereas in Irish it is word-initial and its locus is the
noun, in German it is word-final and its locus is the article and accompanying
adjective(s). Our view is that such differences probably impeded the perception of
such resemblances as there are and thus put paid to the operation of a psychoty-
pological factor in this instance.

7.   Concluding remarks

Our conclusion from Study A was that influence from Irish in respect of French L3 was largely absent in the lexical sphere. Our learners' quest for lexical resources beyond their knowledge of French seemed to be influenced by recognition of the lexical closeness of English and French. We explored the possibility that these results might be attributable to the fact that English was the participants' L1, but the evidence supplied by participants for whom Irish as well as English was an L1 indicated that these Irish/English bilinguals' cross-lexical strategies with respect to their use of French L3 also drew primarily on English and only minimally on Irish. This tended to confirm our psychotypological interpretation.

In Study B we had speculated that participants might find the resource of knowing non-finite clauses of purpose in Irish – where WO is similar to that in German non-finite clauses of purpose – facilitative in relation to producing the required WO in German. Here we found that learners' ability to produce correct word order in German was at a high level, even though their ability to produce other lexico-grammatical elements accurately in the target clauses was limited. Our inference of Irish influence in this connection is strengthened by the fact that English-speaking learners of German without Irish seem to have great difficulty with German WO in subordinate clauses. With respect to morphology in prepositional phrases, we noted that our participants performed less than successfully. There was in this case no indication that their knowledge of morphological modifications after prepositions in Irish had any facilitative effect on their production of morphological modifications in prepositional phrases in the L3. Our explanation of this finding is that – in contradistinction to the case of WO in non-finite purpose clauses – the similarities between Irish and German post-prepositional noun phrase morphology are not obvious enough to learners to trigger psychotypologically based facilitation in this instance.

The studies taken together represent the emergence of research in Ireland into the nature of crosslinguistic influence involving more than two languages, heretofore a rather neglected area of investigation in the Irish context. Specifically, they focus on the part that Irish – the typical L2 in the Republic of Ireland – plays in the subsequent learning of L3s. This issue is an almost *terra incognita* and stands in urgent need of exploration – not only for the light that such exploration might shed in general terms but also for implications that its findings might have for the entire language-teaching enterprise in Ireland.

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Acknowledgment

Methods of research in multilingualism studies

Reaching a comprehensive perspective

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This chapter focuses on the methods of research which especially fit the nature of multilingualism. The inherent properties of contemporary multilingualism, complexity, liminality and suffusiveness, call for apposite and emerging methods of research. Among the latter are methods of complexity science, as well as the use of metaphors, and conceptualization serving as methods of research. We argue that multilingualism studies could significantly benefit from the still less widespread, emerging methods introduced in addition to the remarkably broad array of traditional methods of research.

Keywords: research methods, complexity, properties and developments of multilingualism

Introduction

The full list of the methods used in such a vast area of knowledge as multilingualism would be extensive indeed. This article does not intend to and cannot possibly cover them all equally. Rather, while acknowledging the time-honoured approaches to research in the area of the use and acquisition of multiple languages, we shall put the emphasis on recently emerging and promising methods of research, focusing on those which especially fit the specific nature of Multilingualism Studies.

We shall argue that in addition to the remarkably broad array of traditional methods of research, the still less widespread, emerging methods could fruitfully feed into the broader multilingualism studies enterprise.

With this in mind, we shall first characterize the nature of multilingualism and the resultant specificity of Multilingualism Studies in order to better understand the suitability and appropriateness of various research methods in this area

of knowledge. Then we shall describe and analyse the emerging methods that we think of as promising for the current and future stages of multilingualism studies.

Since Multilingualism Studies are multilayered and draw on various planes of research, such as language learning and teaching, neurolinguistics, psychology, education, communication and sociology studies and others, numerous research methods have proved to be instrumental. Both in formal settings and in the sociolinguistic domain we see a range of time honoured methods that are widely used in multilingualism research. See, for example, Hornberger and Corson (1997) on research methods in language and education; Goral et al (2002) on methods used in neurolinguistics; Jessner (2008) for the review of the various dimensions of research in language teaching; Denzin (1978) and Flick (2007) on methods, theory, investigator triangulation and Janesick (1994) on interdisciplinary triangulation. The reader may also refer to the authoritative book on appraising and critical analysis of quantitative research by Porte (2002) and the state-of-the-art review of qualitative methods by Richards (2009) respectively.

In this article, we will focus on the methods which came into use in Multilingualism Studies more recently.

Contemporary multilingualism and more recent research methods

1.   Properties and developments of contemporary multilingualism

Human language practices have recently undergone significant changes as a consequence of the crucial global shifts which took place in the 20th century. The modification of human experience of time and space, the information explosion owing to technological breakthrough with on-going innovations, the elimination or blurring of borders of all kinds are only some of these shifts. All the major attributes of the contemporary global settings feature current multilingualism as well because multilingualism and globalization are inextricably intertwined (Aronin and Singleton 2008a).

The shift in patterns of language use in human society is conspicuous for the inhabitants of our planet and is outlined in the literature (Fishman 1998; Maurais 2003). Multilingualism as such is, of course, not a new phenomenon in human society; multilingual individuals and populations have existed throughout history. But the sociolinguistic setting we are living in now is a very specific one, different from previous sociolinguistic contexts. The new sociolinguistic dispensation embraces language ideologies and policies, education, language practices of communities and individuals, teaching languages and teaching/learning through languages. It also encompasses the development and functioning of language va-

rieties, dialect phonology, vocabulary, morphology, syntax, state of development and status of one particular language vis-à-vis other languages, and status in the community in which it is used and many more aspects. In order to emphasise the difference of contemporary multilingualism from 'historical multilingualism', it is referred to as 'a new linguistic dispensation' (see more on this in Aronin and Singleton 2008a). In modern times, a group of two or more languages rather than one single language often meets a society's and an individual's fundamental needs in respect to communication, cognition, and identity.

Contemporary multilingualism is characterised by inherent emergent qualities (*properties*) (Aronin and Singleton 2008d). In particular, contemporary multilingualism is '*suffusive*', that is, it permeates the world in terms of the existence of multilingual populations, geographical areas, business and other activity domains where multilingual practices prevail. It is *complex*, that is, it cannot be accounted for as a sum of its parts. Finally, contemporary multilingualism can be characterised as *liminal*. This last quality means that many processes and phenomena connected with languages seem to have become especially discernible or noticeable recently owing to shifts and changes in society in general and in the domain of language use in particular. In other words, under current sociolinguistic conditions, issues which were previously impossible to single out, are now becoming apparent.

These three properties of contemporary multilingualism become visual in the concrete *developments* taking place in the current global linguistic dispensation (Aronin and Singleton 2008d) (see Figure 1).
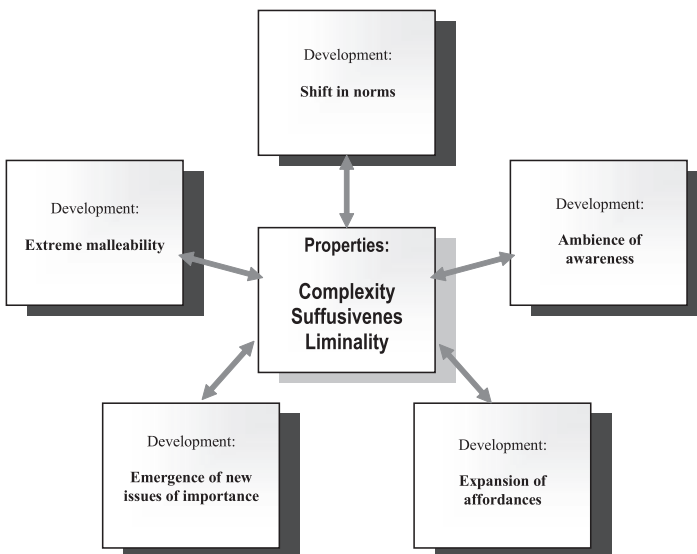
Figure 1. The Properties and Developments of the Current Global Linguistic Dispensation (modified after Aronin and Singleton 2008d)

How do these recently germinated properties and developments of multilingualism necessitate the modification in the use of time-honoured research methods in this domain and inclusion of new ones? Searching for an answer, in the following we will discuss some of the properties and developments and their impact on current research in multilingualism.

2.   More recent methods in the field of research into multiple language learning and use

2.1   *The property of complexity and research methods*

The most obvious property is that of **complexity**, awareness of which is gaining momentum for those concerned with multiple language use and acquisition. Complexity is the subject matter of complexity science (complexity approach, systemic thinking), which has proven to be effective in arriving at solutions in fields as varied as medicine, traffic organization, and financial services (Waldrop 1992; Kaneko and Tsuda 2001; Capra 2005). Its techniques, ideas and solutions can be productively transferred to multilingualism studies. Particular methods and apparatus of this approach have already yielded results in various language-related domains. For example, in his well known study of the cognitive dynamics of language acquisition and change, Cooper (1999) applied concepts derived from thermodynamics and computation to understanding the stability of language over time and between communities (such as child language versus the language of adults and jargons). He introduced techniques to isolate and measure attractors (attractor – a pattern or a point that 'attracts' a process) in order to explain the emergence of word meanings and the sociodynamics of language. Interest in fractal objects, those of irregular shapes and infinite variety (Bateson G. 1979; Bateson M. 1994; Capra 1996; Mandelbrot 1982), may hold the key to understanding the similarly complicated dynamics of multilingualism. In their study of multilinguality, Ó Laoire and Aronin (2005) attempted to generate and ponder fractal-like images for studying the representation of languages in multilingual settings in Ireland and Israel and were able to reach some findings otherwise not so amenable to discovery by conventional methods.

Among the more recent findings, those presented in the special issue of *Applied Linguistics* edited by Ellis and Larsen-Freeman (2006) symbolize the shift to wider acceptance and 'legitimization' of research undertaken from a complexity perspective. The journal contains the contributions of authors who share the conceptual perspective of emergentism, those who believe that this perspective "is capable of shedding light on such diverse areas of language study as syntax and discourse, the use of metaphors in situated talk, and the origins of language"

as well as offering "a coherent solution to a number of theoretical conundrums in language development" (Cook and Kasper 2006: 554).

MacWhinney (2006: 732) puts forward a strong argument in favour of taking complexity methods seriously, and he regards emergentism "as equivalent to basic scientific methodology." He unambiguously connects the expansion of emergentist research to the advance of technology:

> The articulation of emergent accounts depends on strong methodological support. Because emergentist accounts emphasize complex interactions between multiple factors across multiple time scales, they rely heavily on the powerful computational methods introduced by digital revolution. Without the enormous recent explosion in computational power and usability, the recent flowering of emergentism would not have been possible.

Indeed the researchers who embraced emergentism use computerized databases, graphing and statistics to track complex patterns of variation in learners (Larsen-Freeman 2006), demonstrating the impact of computerised corpora on theories of language learning and functional linguistic analysis (Mellow 2006; Cameron and Deignan 2006). Simulations were carried out to learn how word order could have emerged in the process of language origination (Ke and Holland 2006) and of multilingual lexicons by modeling competing L1 and L2 vocabulary items in Boolean network terms (Meara 2006). This research avenue is in particular seriously characterised by thorough engagement in concrete mathematical and computerised methods of research.

MacWhinney predicts that "We are now at the beginning of a technological revolution that will illuminate the study of emergent processes in L2 even more powerfully."

Awareness and explicit recognition of complexity of multilingualism primes selection of particular methods, procedures and research participants as well as the interpretation of results, which allows for a more comprehensive theoretical understanding of multilingualism.

The belief that complexity ideas can contribute to research into language learning and use are shared by representatives of a number of disciplines related to multilingualism. About the same time researchers independently arrived at related ideas. Larsen-Freeman (1997, 2002) pointed to striking similarities between the new science of chaos/complexity and second language acquisition (SLA). Herdina and Jessner (Jessner 1997; Herdina and Jessner 2002) employed systemic thinking for the study of language acquisition and psycholinguistics. Their novel DMM (Dynamic Model of Multilingualism) approach emphasized a dynamic representation of multilingualism and in particular of multiple language acquisition with the focus "placed on the variability and dynamics of the individual speaker system"

(Herdina and Jessner 2002: 2). De Bot (2004) made use of Dynamic Systems Theory to look at the languages in linguistic communities. Aronin and Tikhiy (2005) demonstrated the remarkable parallel between the concepts of complexity and the recent key findings in multilingualism.

Gabryś-Barker (2005) analysing quantitative studies on multilingual development, lexical storage, processing and retrieval, takes a vision of the complexity of multilingualism and of the fuzziness of multilingual lexicon as her frame of reference.

Aronin and Singleton (2008b) see profound implications for research methodology in approaching contemporary language contact as a complex phenomenon having emergent qualities. The implications of the new angle of vision are also evident in practical dimensions and include *inter alia*, understanding the specific needs of multilinguals with respect to pedagogy, curriculum planning, life-long education, and various forms of community education. Thinking of a situation in complexity terms enables us, for example, to approach the perennial hotly debated problems of linguistic arrangements in society from a point beyond the bounds of traditional considerations.

Both ideational and exact (mathematical, computerised, graphic) methods connected with complexity thinking should be employed sensibly. MacWhinney (2006: 737) proposes a suitably circumscribed place for emergentism in linguistic studies:

> It is easy enough to come up with emergentist accounts that are appealing but wrong. By itself, emergentism is no magic bullet. We must apply it with caution and discipline. Emergentist thinking provides general guidelines for studying the mechanisms generating complex phenomena. It is the responsibility of the individual researcher to apply these guidelines to specific cases.

2.2   The property of liminality and its expression in the use of research methods

As stated above, contemporary multilingualism is **liminal** in that it allows for processes and phenomena connected with languages 'to transpire', that is, become especially discernible or noticeable. An instance of liminality is well captured by Spolsky. Describing second/foreign language teaching and learning, Spolsky (1999) stressed the social aspects, where previously a purely linguistic approach to second language learning had existed.

> Those of us concerned with the field of second-language learning have been forced by the ethnic revival and by our new appreciation of language and ethnicity to extent our concerns to embrace the social context in which the teaching takes place. We do this reluctantly, for we naturally prefer the neatness of parsimonious explanations. It is much simpler to restrict a model of language learning to linguistics (which should tell us about language) and psychology (which should complement this by telling us all about learning) and not have to add all the complexity of the social world.   (Spolsky 1999: 182)

The quality of liminality is also responsible for the development which was dubbed *the emergence of new focal issues* (Aronin and Singleton 2008d). Among these are the topics which were discussed in the past, but have recently come to the fore and acquired new significance, as well as topics being reformulated. An example of the former is the issue of identity. As compared to its profile in pre-globalization times, this issue is now most salient (cf. Castells 1997; Bendle 2002; Giddens 1991; Palmer 2003; Benwell and Stokoe 2006). The exploration of identity in the framework of multilingualism studies borrows theoretical approaches from the wider domain of social studies. In addition to quantitative methods of research multilingualism researchers rely noticeably more on qualitative work on individual multilinguals' accounts of experiences and attitudes, subtle nuances of perception. Others, largely remaining in the framework of strict quantitative methods extend their interest to 'exotic' topics such as 'Blistering barnacles! What language do multilinguals swear in?!' (Dewaele 2004) and 'The emotional weight of *I love you* in multilinguals' languages' (Dewaele 2008).

Thus the quality of liminality of current multilingualism expresses itself not only in the emergent phenomena and processes but also in the 'transpiring' phenomena and processes which are coming to the fore in present day discussions of multilingualism. This expansion of the field allows for a more open range of methods, some of which were not seen as fitting before.

The qualities of complexity and liminality which characterise contemporary multilingualism are also responsible for another development of the current sociolinguistic dispensation – *a shift in norms.*

This shift in norms is one of the emergent developments (see table 1) which is becoming more and more apparent in social and schooling practices. A number of norms have been gradually transformed. Among them is the move from the previously dominating monolingual norm to regarding bilingual and multilingual speakers and learners as the norm (Grosjean 1985, 1992; Cook 1992, 1999). Embracing cultural and linguistic diversity has resulted in the current situation in which bilingual education is common, and trilingual education is being adopted as a necessary model in more and more countries. The shift in norms has taken place in the formulation of the aims of L2 study (as well, of course, as in

respect of L3, L4, Ln study) which are currently being framed, especially perhaps with respect to English, in terms of the learner being able to communicate in the additional language(s) rather than being a copy of a native speaker (Cook 1993). This, in turn, has led to restructuring language learning/teaching practices, teaching/learning strategies, aims, and learning materials and has stimulated discussion of new topics such as authenticity in materials design. The shift in norms has provoked doubts and reassessments of research methodology in third language acquisition and multilingualism. Jessner (2006: 15) points out that

> the growing interest in TLA and its cognitive and linguistic effects has also given rise to doubts about all the experiments which have been carried out with 'bilingual' subjects who, in fact, might have been in contact with other languages, but had never been asked about their prior linguistic knowledge (see also De Bot 2004: 22). Whether this would have had an effect on the results of the experiments or not remains an issue to be discussed. It may or may not have affected the results and the conclusions drawn had this information been taken into account in the language biography of the testees in the first instance. This again depends on the kind of experiment and linguistic field in which it is embedded.

The shift in norms has also occurred in the selection of methods considered appropriate for use in the investigation of phenomena and processes of multilingualism, which are nowadays being viewed in a different way. For example, qualitative methods of research are being used increasingly, although the gap between the use of qualitative and quantitative methods of research is evident. Richards reports a "solid – though minority – presence" of qualitative methods (about 18%) in the studies represented in leading language teaching journals since the turn of this century (2009: 151).

Because, with the advent of the changes associated with globalization, diverse angles of vision have become acceptable, studies have appeared, especially within the stream of critical studies (e.g. critical pedagogy, critical globalization studies) which rely on the methods where the stand of the investigator is crucial and determines the findings, their assessment and interpretations (see for example, Creese and Martin 2003). This kind of research is well illustrated by the case study of Somali literacy teaching in Liverpool (Arthur 2003). The study, exploring the communicative and symbolic roles of languages, involves ten girls aged 11–12, members of the Liverpool Somali community. It combines a number of methods including historical and ethnographical contextualization, detailed consideration of the micro environment in which the study is situated, deep analysis of a transcribed extract from one of the literacy lessons, and a survey by interview of learners' reflections, views and beliefs, as well as the reflections of the author.

2.3   *The property of suffusiveness as it refers to methods of research*

The third property of multilingualism – ***suffusiveness*** – along with complexity and liminality, accounts for the fact that multilingualism studies have become extraordinarily acquisitive with regard to methods of research. Multilingualism studies adopt the methods used in other domains (such as sociology, linguistics and psychology) and from fields previously deemed unrelated to multilingualism (such as mathematics and economics). Multilingualism studies expand and deepen their methodology potential via the following:

–   the wide use of metaphors as a research method;
–   the use of conceptualization which actually serves as a method of research;
–   a recent tendency to appropriate methods of study which are used in disciplines traditionally thought to be rather 'distant' from research into language use and acquisition;
–   a remarkable increase in crossdisciplinary investigations.

We will discuss each of the points in turn.

Metaphorical thinking

At the turn of this century, the sociologist Urry (2000: 21) convincingly maintained that "Much of our understanding of society and social life is based upon and reflected through various metaphors". Commonly used and productive metaphors are those of mobility, flux, exchange and network. Metaphors are also widely employed and productive in multilingualism studies. Metaphors relating to place, local and global, the environment, context, boundaries, especially those indicating reaching 'beyond' expanding horizons of all kinds, are often called upon to facilitate an imagining, expression, and better understanding of the various dimensions of multilingual reality. Among the attempts to seek parallels and similarities from other domains of human knowledge, the most attractive presently are those from natural science and ecology. Alter (1999) described the similarity that Charles Darwin and his peers perceived as early as the 19th century between the transmutation of biological species and the 'evolution' of languages. It is hardly surprising that the metaphors of nature and living creatures are frequently used in language and multilingualism studies. The image of nature is behind the concept of a 'linguistic landscape' (de Bot 2004; Gorter and Cenoz 2004; Gorter 2006; Backhaus 2007).

   An ecological approach to language (or language ecology) originated by Haugen in 1972 was espoused and further developed by a number of researchers (Mühlhäusler 1996; Fill and Mühlhäusler 2001; Edwards 1992; Bronfenbrenner 1993; Hornberger 2002). Kramsch (2008) sees the basis of the ecological perspective on foreign language education in complexity theory.

Hornberger (2003: 136) defined this approach succinctly and in very simple terms as

> a metaphor for ideologies underlying multilingual language policy and practice, in which languages are understood to (1) evolve, grow, change, live, and die in an eco-system along with other languages (*language evolution*); (2) interact with their sociopolitical, economic, and cultural environments (*language environment*); and (3) become endangered if there is inadequate environmental support for them vis-à-vis other languages in the eco-system (*language endangerment*)…

Continuing this metaphor of language as a living organism/entity by intensifying and broadening it researchers go deeper and farther in their conclusions. Skutnabb-Kangas believes that "English is the world's worst killer language" (Skutnabb-Kangas 2004) and is primarily responsible (along with Spanish and French) for the gradual extinction of smaller local languages. Bastardas-Boada (2004) speaks about 'glottophagic expansion of dominant languages'.

Metaphors work as methods of research because along with other method employed in a particular study, they serve as a means of arriving at conclusions. As an example: in a book written by Skutnabb-Kangas (2000), in addition to the background of supporting facts, numbers and studies, the author devotes a whole chapter to elaborating the working metaphor of language as an endangered species. She deploys the comparison of linguistic diversity and biological diversity.

Other metaphors invoke 'political' or criminal connotations, such as *imperialism* in 'linguistic imperialism' (e.g. Phillipson 1992), and are not uncommon especially in critical pedagogy discourse. Waterhouse in her pedagogical-philosophical study (2008) ponders whether it is appropriate to call English language teachers "linguistic terrorists" and uses the expression "the elusive colonial monster" referring to English.

Conceptualization and re-conceptualization as methods of research
Owing to the new global developments briefly mentioned above and because of the scope, complexity and diversity of data amassed in multilingualism studies, the imperative need has arisen for a conceptualization and re-conceptualization of empirical and theoretical knowledge. Notably, re-conceptualization, or 'reorientation' as Jessner calls it (2006: 14), is specific to multilingualism and concerns the quality of liminality. Referring to the study of Flynn et al (2004), Jessner wrote that

> This research group argued that investigation of L3 acquisition (by adults and children) provides essential new insights about the language learning process *that neither the study of first language acquisition (*FLA henceforth*) nor SLA alone can provide*.   (Italics – L. A. & B. H.)

In a similar vein, Franceschini (this volume) calls for a "change of perspective" in multilingualism research and a "reinterpretation of linguistic diversity and of the various forms of language acquisition/learning". The conceptualization and re-conceptualization is carried out in the forms of (1) developing a thesaurus of multilingualism; (2) ascending to the philosophical level of conceptualization; (3) developing models specific to multilingualism as opposed to models applicable only to mono- and bilingualism; (4) using mental constructs. Below we will look at these in further detail.

1. *Developing a thesaurus of multilingualism* is expressed, for example, in the current very active quest for definitions. In their articles (this volume), Kemp and Franceschini feel it important to elaborate on and clarify the definitions of multilingualism and Cenoz and Jessner put forward a definition of multilingual education. Building a thesaurus of multilingualism is also carried out by specifying the key notions (e.g. Herdina and Jessner 2002 on the notion of transfer). Another example is the meticulous distinction between 'metalinguistic awareness', 'linguistic awareness' and 'language awareness' provided by Jessner (2006). Offering classifications of the key phenomena is yet another research method. As an illustration we can consider, for example, a typology of trilingual primary education by Ytsma (2001). Hoffmann (2001a: 18–19) classified trilinguals into five groups, namely, taking into account both the circumstances and the social context under which the subjects became users of three languages. She noted that

> One could also establish other typologies reflecting, as criteria, features related to acquisition such as age, acquisition process (simultaneous, successive or a combination of them), acquisition context (home, community, classroom, school), language competence and skills attained, among others.   (Hoffmann, 2001a: 19)

2. *Philosophical level of conceptualization.* As distinct from the research methods in other than philosophy sciences the philosophical method of research is *a priori* in nature. "… philosophy avoids using the senses and relies on reflection" (Lacey 2001: 252). Aronin and Singleton (2008c) proposed the use of the apparatus and categories of philosophy in the study of multilingualism and suggested that multilingualism in its entirety be subjected to philosophical scrutiny. They also outlined some possible lines of investigation for a philosophy of multilingualism.

3. *Developing models specific to multilingualism.* Models specific to multilingualism shared with but mostly opposed to models of bilingualism provide frameworks for understanding the processes and phenomena of multilingualism. Models specific to multilingualism are the Factor Model developed by Hufeisen

(Hufeisen 2000, 2001; Hufeisen and Gibson 2003); the Multilingual Processing Model elaborated by Meißner (2003); an ecological model of multilinguality presented by Aronin and Ó Laoire (Aronin and Ó Laoire 2004); a role-function model put forward by Hammarberg and Williams (Hammarberg 2001; Williams and Hammarberg 1998), and the Dynamic Model of Multilingualism (DMM) proposed by Jessner and Herdina (2002). (For a more comprehensive explanation of the models see Jessner 2008; Hufeisen and Marx 2003; Hufeisen and Neuner 2004; Hufeisen 2005).

4. *Mental constructs* have been developed to explain phenomena pertaining specifically to multilingualism in order to see the actual processes and phenomena of multilingualism through the lens of a multilingual speaker and learner. The most significantly productive and successful are those of *interlanguage* (Selinker 1972, 1992; De Angelis and Selinker 2001) and *multi-competence* (Cook 1992; 1996; Hoffmann 2001b). A construct of a Dominant Language Constellation (DLC) has been proposed (Aronin and Ó Laoire 2004; Aronin 2006; Aronin and Singleton 2008d) to encompass the nature and the complexity of multilingualism. Investigating the DLC offers a cynosure of the multiple constituents of the multilingual situation, a vantage point from which to study it with the desired degree of reference. As the DLC is a cross-section of multilingualism, representing the multilingual situation of any size, a wide range of vantage points and levels of study may be treated in a DLC approach.

Appropriating methods from other disciplines
As the purview of multilingualism studies expands, it is growing out of using methods of only one particular discipline; it naturally adds the methods of other disciplines to its own. We can suggest here two illustrations. One is using the 'solid data' – material artifacts as opposed to and additional to the traditional use of 'soft data' analysis in sociolinguistic studies. Calculating and interpretation of the density of material objects which are essentially representative evidence offer additional opportunities of measurement in multilingualism studies according to Aronin and Ó Laoire (2007).

The other illustration refers to using methods of economics to investigate multilingualism issues. The field of the 'economics of language' has been developed more intensively recently and is one of the 'emerging' topics of multilingualism. Cenoz and Gorter (2008) introduced the research method used in environmental economics. In exploring the economic dimension of the linguistic landscape they deployed the contingent valuation method as a way to assess the economic value of language.

Conclusion

The purpose of the present article is to acknowledge the wide variety of methods and approaches available to students of multilingualism and, primarily, to draw attention to the more recent emergent methods of exploring multilingualism.

As multilingualism studies deal with a great diversity of referents and processes in formal and informal settings and refer both to learning experiences and a practical use of languages, the range of apposite research methods is extremely wide. The framework of multilingualism organizes the various specific perspectives into a united broad-spectrum structure where the research methods and their use can be viewed with the specific agenda of Multilingualism Studies in mind.

The multidimensionality and special qualities of current linguistic dispensation should be matched by suitable research methods for the investigation of contemporary multilingualism. It is our belief that the new linguistic dispensation calls for a reconsideration of the way these methods are used in multilingualism studies. The inherent properties of contemporary multilingualism, that is, *complexity, liminality* and *suffusiveness*, necessitate additional appropriate methods for research. The newest research studies in this field present valuable insights by making use of complexity science, notably, emergentist and systems–theoretic approaches, and also metaphors as methods of research. These methods suit multilingualism perfectly and enable us to achieve a more comprehensive perspective on multilingualism and consequently a more comprehensive treatment of its theoretical and practical issues.

The establishment and advance of multilingualism as a field of study in its own right involves conceptualization and re-conceptualization of methodology with the purpose of defining the latest relevant points of departure, and necessitates openness in assessment, as well as a review of previous studies performed under the cover of bilingualism. Conceptualization and re-conceptualization of multilingualism studies is performed by building and expanding the thesaurus of multilingualism, especially definitions and classifications, ascending to the level of philosophy, creating models and mental constructions specifically for multilingualism (as opposed to bilingualism and first language acquisition). Metaphorical thinking has been productive as a method of research in various aspects of multilingualism study.

The notably more acquisitive research behaviour of those interested in a wide area of multilingualism studies has led to modifying, borrowing and appropriating research methods from domains of knowledge both near to and distant from multilingualism. The arrival of a number of new research methods which render the study of multilingualism comprehensive also prompts recalibrating and reorganizing the use of methods already in common use.

We have attempted to demonstrate that current multilingualism studies stand in need of and will benefit from a more open opting for methods from the abundant selection of research methods newly available. Complementarity and triangulation seem to be important if one wants to arrive at findings meaningful for current multilingual reality. A considerably less restrained choice and grouping of methods seems not only legitimate, but also a necessity for today's research.

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The study of multilingualism in educational contexts

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In this article multilingual education is discussed in connection and comparison with bilingual education. An overview of the various forms of multilingual education and teaching is presented, focusing on the socio- and psycholinguistic aspects of multilingual learning. The question of the ideal onset age in a multilingual classroom is dealt with in more detail. Recent research in the Basque Country provides insight into the complexity of multilingual education. The discussion ends with a plea for a multilingual approach to multilingualism.

Keywords: multilingual education, age factor, cognitive effects, metalinguistic awareness, Basque Country, multicompetence

1.   Introductory remarks

Over the last few years a growing interest in the study of multilingualism has emerged. From a global view, this is not surprising since multilingualism does not present an exception but the rule. From a European perspective, it certainly has to be seen linked to the call of the European Union for trilingual European citizens. As published in the Eurobarometer Report 243, most Europeans consider it important to know other languages than their mother tongue (Eurobarometer 2006).

The benefits of multilingualism and multilingual education have been advocated during the last decade although multilingualism presents a phenomenon difficult to grasp in its complexity and therefore posing a number of problems to scholars working in the field. Over the last years, nevertheless, the research area of third language acquisition and trilingualism has contributed to a better understanding of multilingual processes and use. As a consequence, multilingual education has been informed by various trends in research of multilingual acquisition (Jessner 2008d).

The aim of this article is to provide an overview of international research on multilingual education, in contrast to bilingual education. Apart from presenting an overview of various forms of multilingual education and teaching, it will focus on socio- and psycholinguistic aspects of multilingual learning. Special attention will be placed on the important question of age, that is, when it is best to start learning a second or foreign language. New research carried out in the Basque Country will provide insight into this crucial albeit complex issue in multilingual education. Finally, it will be argued that a multilingual approach to multilingualism is needed in order to progress in all research areas of the field.

2.   Multilingual learning is not bilingual learning

In this section multilingual education will be discussed in connection and comparison with bilingual education. At the same time the distinction between second and third language learning requires further exploration since it plays an important role in the classroom and needs consideration in curriculum planning.

In many countries all over the world learning a third language at school presents a common experience for many children. In the European context this means that a number of these children study two foreign languages at school, such as English and French in Austria or Germany. But third language learning also takes place in schools like the European schools where several languages are used as media of instruction (e.g. Baetens-Beardsmore 1995) or due to double immersion, as described by Genesee (1998). These days multilingual education is becoming more widespread due to the recent trends to foster multilingualism, either through the introduction of a foreign language at an early age – in most cases English, or one or two second foreign languages in secondary school, and the changing status of minority languages.

In contrast to bilingual education, multilingual education can present additional challenges because it is much more complex (Cenoz and Genesee 1998). These authors argue that multilingual education is defined by the use of languages other than the L1s as media of instruction (despite the languages which are taught as school subjects) with the aim of communicative proficiency in more than two languages (Cenoz and Genesee 1998:14). As explained in the 'Continua of Multilingual Education' (Cenoz 2009), multilingual education, like bilingual education, can take different forms because it is necessarily linked to the sociolinguistic context in which it takes place and has to take account of the relative status and use of the languages involved. Complexity and diversity in multilingual education are related to the variety of forms of language teaching leading to multilingualism and diverse social environments requiring different forms of multilingual education.

It is worth noting that élite multilingualism seems to favour the use of strict boundaries between languages whereas many multilingual programmes for indigenous people (see examples of Latin America, India and Africa) have a tradition of using languages interchangeably, as pointed out by García et al. (2006: 22). In multilingual education the selection of languages plays a crucial role. Minority or heritage languages have to be fostered and be integrated into the process of multiple language learning (Olshtain and Nissim-Amitai 2004; Krumm 2005). The same applies to the integration of community languages accompanied by some necessary initiatives to improve the status or value of languages other than English (known as LOTE) in multilingual education (Clyne et al. 2004).

Third language acquisition (henceforth TLA) in school shares many important characteristics of second language learning but, at the same time, builds on second language learning; specifically, it is influenced by the degree of bilingualism already attained by the student. Whereas second language learning refers to teaching an L2 as a subject, bilingual education usually refers to the instruction in two languages. But to view this differentiation as a dichotomous feature would be misleading. Rather, second language acquisition (henceforth SLA) and bilingual education should be taken as existing on a continuum, also including content-based approaches using the L2 as medium of instruction within the L2 subject classes (Met 1998). Equally, the distinction between TLA and trilingual (or multilingual) education is not clear. Whereas TLA is used to refer to learning an L3 as a school subject, trilingual education involves the use of three languages as languages of instruction. But again, the boundaries between the two concepts have to be seen as blurred according to the methodological approaches and educational aims for the individual languages (Jessner and Cenoz 2007: 160).

Examples of multilingual schooling can be found in the case of less spread languages and minority contexts where trilingual schooling is common, such as in Luxembourg, the Basque Country (see also below), the Ladin-speaking community in South Tyrol in the northern part of Italy or the Frisian language community in the Netherlands. In major cities we find International Schools which sometimes include third languages and European Schools which can be seen as rather elitist institutions (for a more detailed description see Jessner 2008d).

3.   Attitudes towards languages

The distinction between additive and subtractive bilingualism goes back to Lambert (1977) who established this crucial concept of how language choice is influenced by the prestige of a language in a community or society. Whether a language is maintained in a new environment depends very much on the prestige

of that language in this context. For instance, whereas a Polish family will most probably meet problems with the maintenance of Polish within the family since it is not considered a prestige language in a German or an Austrian context, a French family might find it much easier to maintain the family language in the same context. The distinction between additive and subtractive bilingualism has been criticized by García (2008, chapter 6), who proposes two other concepts such as recursive and dynamic bilingualism so as to include the complexity of bilingualism and its linguistic, ethnolinguistic and cultural dimensions.

Additionally, the prestige of a language also influences the choice of learning this language as an additional language. Lasagabaster and Huguet (2007) carried out a large-scale questionnaire study on the language attitudes of pre-service teachers towards TLA and/or multilingualism in a number of bilingual contexts in Europe such as Ireland, Malta, Wales, Friesland, The Basque Country, Catalonia and Galicia. They concluded from their comparative study that the widespread favourable attitudes towards the minority languages reflect the changes in linguistic policies promoting protection and recovery of the minority languages over the last two decades.

Clearly, the steady growth of English as lingua franca plays an important role in the development of multilingualism, including the contexts above. Graddol (2004) is convinced that the increased acquisition of English in the world, in a number of cases as a third language (Cenoz and Jessner 2000), does not counteract multilingualism but leads to the development of "multilingualism with English" on a societal and individual level (Hoffmann 2000).

4.   Linguistic and cognitive effects of multilingual learning

Multilingual acquisition is a complex and dynamic process. The complexity of multilingual development and use is clearly related to the dynamics of multilingual development, a relationship which has been discussed by dynamic systems theory (e.g. Herdina and Jessner 2002; Jessner 2008c; see also Larsen-Freeman and Cameron 2008).

Just by looking at the difference between the simultaneous vs. the consecutive acquisition of different languages we can see important differences. When two languages are involved there are only two possibilities: early bilingualism when the two languages are learned simultaneously and second language acquisition when they are learned consecutively. In TLA there are at least four possibilities described in Cenoz (2000):

a. simultaneous acquisition of L1/L2/L3,
b. consecutive acquisition of L1, L2 and L3,
c. simultaneous acquisition of L2/L3 after learning the L1,
d. simultaneous acquisition of L1/L2 before learning the L3.

In addition, in multilingual acquisition, the learning process is often interrupted because the learner starts learning another language. This process might be reversed or complicated by reactivating one or more prior languages.

Herdina and Jessner (2002) define multilingual proficiency as non-additive measure of the psycholinguistic systems of a multilingual speaker, crosslinguistic interaction, which also includes non-predictable cognitive aspects of the influence between the languages in a speaker, and the so-called M(ultilingualism)-factor. The latter refers to properties of a multilingual system which cannot be found in monolingual systems such as multilingual awareness, multilingual monitoring, multilingual learning strategies related to the prior language knowledge the speaker can resort to.

The influence between the languages in a multilingual system is the area of research which has received most attention from third language acquisition researchers, as can be seen in various chapters of this book (see also Jessner 2003). The research question which has been of utmost importance concerns the status of the L2 in L3 development. In contrast to the assumption of the dominance of the L1 in foreign language learning it turned out in a number of studies that the L2 exerted significant influence on the L3.

Today researchers start from the assumption that any language can exert influence on any other language in the multilingual system, that is, crosslinguistic interaction can be found between the L1 and the L2, between the L1 and the L3, and finally between the L2 and the L3. It is important to note here that the influence is known to be reciprocal between all the language combinations. As discussed by Kellerman (1995), apart from linguistic aspects of transfer, cognitive processes beyond individual awareness can influence the transferring process. Such a perspective is elaborated in the concept of crosslinguistic interaction in the dynamic model of multilingualism by Herdina and Jessner (2002). According to dynamic systems theory they argue that the multilingual system is not the product of adding two or more languages but a complex system with its own parameters exclusive to the multilingual speaker. Transfer phenomena are recognized as significant features of the multilingual system and therefore present prime objects of multilingual investigation. It is also argued that crosslinguistic interaction, which is not synonymous with crosslinguistic influence, covers non-predictable dynamic effects which determine the development of the systems themselves and are particularly observable in multilingualism, as described in the following.

One of the most interesting issues regarding TLA is to see whether bilinguals have advantages over monolinguals in learning a further language. Back in 1976 Gulutsan reported on double immersion programmes in Canada and thereby already pointed to the intellectual enrichment resulting from trilingual schooling. Today it seems to be widely known that under certain circumstances life with two or more languages can lead to advantages, not only with regard to language knowledge but also in terms of cognitive and sociopragmatic development. Among them we count a heightened level of metalinguistic awareness, creative or divergent thinking, communicative sensitivity and further language learning (e.g. Mohanty 1994; Baker 2006).

Following the early studies of TLA by Ringbom (1987) and Thomas (1988), a number of studies were carried out with children in the Basque Country and in Catalonia to explore the effects of bilingualism on TLA (Cenoz 1991; Cenoz and Valencia 1994; Sanz 1997; Lasagabaster 1997; Muñoz 2000; Sagasta 2003). In all of these studies, bilingual children outperformed monolinguals in the acquisition of English. In a Dutch context, Gonzalez (1998) studied Turkish and Moroccan immigrants with regard to learning English and also found superiority for the bilingual population. For instance, in a Swiss context, Brohy (2001) showed that Romansch-German bilinguals outperformed German monolinguals when learning French.

In an extensive critical overview, Cenoz (2003c) found a tendency towards mixed results in studies on the effects of bilingualism on further language learning which she related to the diversity of the studies concerning the specific aspects of proficiency, methodology used and the testing context. The majority of studies on general proficiency indicated a positive effect of bilingualism on TLA and this effect was linked to metalinguistic awareness, language learning strategies and communicative ability, in particular in the case of typologically close languages. The study also seemed to support Bialystok (2001) who describes a bilingual as someone who does not have across-the-board metalinguistic advantages or universally superior metalinguistic abilities but increased abilities in tasks that require selective attention.

As for additional language learning, the results of these studies seem to imply that the development of a 'bilingual awareness' (McCarthy 1994) or the application of a bilingual norm – instead of a monolingual norm (Herdina and Jessner 2002) – provides the necessary prerequisite for successful further language learning (see also below).

Metalinguistic and metacognitive awareness play an important role in the development of language learning strategies in multilingual learners and users. Jessner (2006) defined linguistic awareness in multilinguals as an emergent property of multilingual proficiency and as consisting of at least two dimensions in the

form of crosslinguistic awareness and metalinguistic awareness. Crosslinguistic awareness refers to the learner's tacit and explicit awareness of the links between their language systems (see also Jessner 2008b).

Due to their experience in language learning, multilingual learners use different strategies to monolingual students learning their first foreign language, as already pointed out by McLaughlin (1990). As shown in several further studies on the good language learner around 1990 (Nation and McLaughlin 1986; McLaughlin and Nayak 1989; Nayak et al. 1990), expert language learners show a superior ability to shift strategies and restructure their internal representations of the linguistic system. Thomas (1992) also concluded from her TLA studies that a student's prior linguistic experience influences the strategies which they subsequently adapt and their success in the foreign language classroom. Later on, Mißler (1999, 2000) carried out a large-scale study on language learning strategies in multilingual students in a German context. She found that the increase of language learning experience was reflected in the number of strategies, which also turned out to depend on individual factors. This was supported by Ender (2007) in her study on reading comprehension in multilingual learners of French at Innsbruck University in Austria. Based on another large-scale study in Germany focusing on Romance languages, Müller-Lancé (2003) developed a strategy model of multilingual learning where he distinguishes between productive (or retrieval) and receptive (or inferencing) strategies which turned out to depend mainly on formerly acquired lexical competences in other foreign languages. Kemp (2001) showed that multilinguals acquire the grammar of another language faster, i.e. they use more grammar learning strategies (see also Klein 1995). In her most recent study Kemp (2007) even detected a threshold effect for the use of grammar learning strategies, namely that diversification and augmentation of strategy use occurs to a greater extent during the acquisition of the L3.

5.   Exploring the age factor

Research on the influence of age on the acquisition of second and additional languages has important implications for multilingual education when making decisions about instruction of different languages and through different languages in the curriculum. There is the popular idea that children pick up languages more easily than adults and that 'the earlier the better' is the right strategy for language learning. This idea is based mainly on the experience of immigrant families acquiring the language of the host countries. In these cases, the age of arrival is usually linked to the level of proficiency and younger children tend to acquire a higher level of proficiency in the target language than older children

and adults. Research studies in this type of setting have confirmed these results (Hyltenstam and Abrahamsson 2003; DeKeyser and Larson-Hall 2005). However, the effect of age on second language acquisition is still a controversial area of research because language learning is a complex process and the age factor cannot be easily isolated from other individual and contextual factors. Research in natural language environments tends to support the existence of sensitive periods for SLA but some studies have reported that older children and adults can also acquire very high levels of proficiency in a second language (see Singleton and Ryan 2004 for a review).

The diversity of multilingual education shows that there are many possible ways to introduce different languages in the school curriculum. In many countries second and foreign languages are introduced in the last years of primary school or in the first years of secondary school. In other countries second and foreign languages are introduced in pre-primary and even in daycare centres because it is thought that very young children can have some advantages for learning languages that can be lost when children grow older.

The development of the field of third and additional language learning and multilingualism has raised the interest in different aspects of language acquisition and among them on the study of the age factor as related to third language learning in school contexts. Studies on education are often related to specific social and educational problems and changes in educational policies. This situation is clearly reflected in the research studies conducted in two autonomous communities in Spain, Catalonia and the Basque Autonomous Community. Studies in these communities focus on the acquisition of English as a third language in schools were Spanish and the minority language (Catalan or Basque) are also school subjects and/or languages of instruction.

The increasing role of English in Europe and as a language of international communication has developed a growing interest in learning English which is reflected in demands for more English instruction and better quality English instruction in schools. With a few exceptions, English can be regarded in these areas as a foreign language not used in everyday communication. The level of proficiency in English in Spain in general is lower than in some other areas of Europe where there is more exposure to English with native and non-native speakers and through the media. English is also typologically more distant from Spanish, Catalan and particularly from Basque than the different Germanic languages.

The need to improve the level of English at school has been associated with the early introduction of English in the school curriculum. The Spanish decree for pre-primary (Decree 1630/2006-4-1-2007) states that a first contact with a foreign language should be encouraged so as to develop positive attitudes towards foreign languages, by using the foreign language orally for communication in the

classroom. Although there is not a minimum number of hours for foreign language teaching in pre-primary, the number of hours for a foreign language is 385 for primary school. A first foreign language is a third language in bilingual communities such as the Basque Country and Catalonia. In this section we are going to discuss in more detail the situation of the early introduction of English in the Basque Autonomous Community (see also Cenoz 2009).

The early introduction of English as a third language in pre-primary is one of the main characteristics of the Basque educational system. It was initiated on an experimental basis in several Basque-medium schools in 1991. These schools had Basque as the language of instruction and Spanish as a school subject and their pupils are native speakers of Basque or Spanish and in some cases early bilinguals in Basque and Spanish. The idea was to combine the reinforcement of the minority language by using it as the main medium of instruction with more instruction in English. Spanish is the majority language in the sociolinguistic context and it is also taught as a subject. This experiment spread to many other schools and nowadays, 90% of the schools teach English from the age of four although it is not compulsory until the age of six. This early introduction of English was very much encouraged by parents who want their children to learn English and think that an early introduction necessarily results in a higher level of competence. Before the early introduction of English was spread to most schools there was also some competition between schools to attract more students by offering English from a very early age. Nowadays, many parents send their children to private classes of English or to language schools in the evenings so that they learn more English because they think that the level of proficiency achieved at schools is not enough. Teachers in these private English schools for evening classes are in many cases native speakers of English and they prepare children for specific certificates. Parents also send their children to English-speaking countries in the summer. The early introduction of English is considered a way to improve proficiency in English but so far it has not replaced the private extra-classes or the courses in English-speaking countries.

The teaching of English in pre-primary is limited to very few hours per week but it increases the total number of hours of exposure to English. The minimum number of hours for the teaching of a foreign language (mainly English) in primary school is 770 in the Basque Autonomous Community, much higher than the compulsory number of hours in Spain. Still the average number of hours devoted to the foreign language per year is quite limited (128 hours) if we consider that exposure to the language is very meagre outside the classroom. In fact, exposure through the media is slight as most people watch Basque and Spanish television and all the programmes are dubbed into Basque and Spanish without using subtitles. English is used in some commercial signs and by tourists but its

use is quite restricted and most children have no contact with English outside the classroom.

Apart from the early introduction of English there have been other projects to improve the teaching of English. For example, the Basque Government Department of Education has subsidized intensive language learning and methodology courses for English teachers both in the Basque Country and in the United Kingdom. The Basque Government has also tried to improve the quality of English teaching by encouraging the adoption of new instructional approaches, especially those that emphasize the acquisition of oral skills, the use of learner-centered syllabi, and the integration of curricula for the three languages. Some schools have gone a step further and are using English as the language of instruction at the end of primary school and in secondary school (Cenoz, 2009). Nevertheless, the most popular project is the early introduction of English as a third language in the second year of pre-primary to 4-year-old children.

From 1996 onwards a research team from the University of the Basque Country has been working on different areas of the acquisition of English as a third language as related to the age of introduction of English. This research has focused on different areas: phonetics and phonology, lexicon, morphology and syntax, writing skills. The results have focused on general proficiency in English (see also Cenoz, 2002, 2003a, 2009), attitudes, specific aspects of proficiency and cross-linguistic influence (Cenoz 2001, 2003b, 2004; García Mayo 2003; García Lecumberri and Gallardo 2003; Ruiz de Zarobe 2005; Lasagabaster and Doiz 2003). These studies report results that can contribute to the theoretical debate on the age question in SLA and to the development of the area of TLA and trilingualism because English is learned as a third language within bilingual education. The implications of these studies can also be useful for language planning and curriculum development when deciding about the best possible age to introduce a foreign language within a bilingual education system. Here we will just summarize the general results.

Participants in this research study were children who had started learning English as a third language at different ages: from the age of 4 in pre-school, from the age of 8 in the 3rd year of primary school and from the age of 11 in the 6th year of primary school. All participants came from similar socioeconomic backgrounds and did not take any private classes of English outside school. They had not been to English speaking countries either. Comparisons were made in three different ways:

1. Comparing the level of English proficiency between groups of learners who have had the same amount of exposure but started learning English at different ages.

2. Comparing the results obtained in the English proficiency tests by learners who were the same age but have received different amount of exposure.
3. Adopting a longitudinal perspective and comparing the progress made by learners in primary and secondary school.

The results of the comparisons between groups of learners who had started learning English at three different ages (4, 8 and 11) and had received the same number of hours of instruction indicate that older learners achieve higher scores in oral and written proficiency in English than younger learners. These general results are confirmed by the studies on different aspects of proficiency reported in the studies mentioned above. The results are also consistent with the results obtained in Barcelona when comparing learners who had started in the 3rd year of primary school to learners who had started in the 6th year of primary school (Muñoz 2006). A possible explanation for these results is related to cognitive maturity that could help older children to do better because they have higher developed test-taking strategies. Another possible explanation of the results is linked to the type of input. The oral-based approach used with younger students could explain the fact that there are fewer differences in oral skills but more differences in tests of more lexical and syntactic complexity. The differences are more important in those measures related to higher metalinguistic awareness and it could also be that the higher metalinguistic awareness associated with third language acquisition (Jessner 2006) is not observed in the early stages.

A second comparison focused on analysing the differences in English proficiency tests between learners who were the same age but had received different amount of exposure. The advantage of comparing the results obtained by subjects who are the same age is that no differences can be attributed to cognitive development. However, the problem of this perspective is that the results can be attributed both to the differences in age and to the differences in the number of hours of instruction. This is a methodological problem for research on the age factor but not so much for research in multilingual education aiming to find out the most efficient way to introduce second and additional languages in the curriculum. The results of the research study conducted in the Basque Country indicate that an earlier introduction of English including 300 hours more of instruction has a positive effect on some tests of oral production but not in all the dimensions of English proficiency. The most obvious explanation for these results is related to the type of input which could explain that the effect of additional instruction from an early age is only seen in some measures of oral production. An alternative explanation is that younger learners do not present advantages because they are still in the first stages of TLA and some studies indicate that more advantages are seen in comparisons carried out at later stages (see Cenoz 2009).

The third comparison focuses on the progress made by learners in primary and secondary school. A longitudinal perspective was adopted in this case and the results indicate that both primary and secondary school students make progress along the two years in which the measurements were taken. The comparison of the same group of students in the 4th year and the 6th year of primary school indicates that subjects make significant progress in all the measures of English proficiency except pronunciation, vocabulary and number of utterances in the Frog story. The longitudinal data corresponding to the 2nd year of secondary school and the 4th year of secondary school indicate that learners make significant progress in all the measures of English proficiency except pronunciation and listening comprehension. The fact that there is no progress in pronunciation could be due to fossilization, the increasing influence of spelling on pronunciation or the exposure to non-native models of pronunciation. The fact that there is no progress in listening comprehension can be due to the high scores that subjects get in this test which were already very close to the maximum score. A detailed analysis of the progress of the primary and secondary students' progress along the two years indicates that secondary school learners made more progress than primary school learners. In fact, secondary school learners make more progress than primary school learners in fifteen of the twenty measures. These results confirm once again that learners in primary school make more progress in these measures than in those related to metalinguistic awareness (grammar, cloze test) and can indicate the influence of the type of input they receive.

In sum, the results of the project on the effect of age on TLA conducted in the Basque Country indicate that an early introduction of English in pre-primary does not necessarily result in a higher level of proficiency when exposure to the language is limited to a few hours of class per week. The results also indicate that an approach based on oral communication can produce better results in oral abilities but that these abilities are not necessarily transferred to other areas of proficiency, at least in the first stages of third language acquisition. An early introduction of English does not create problems with cognitive development or the development of proficiency in other languages (see Garagorri 2002) but does not necessarily provide the level of proficiency that is needed for European and international communication (see also Muñoz 2006 for Catalonia). Better results could be expected if an early introduction of the third language was followed up by the use of the L3 as an additional language of instruction. Teaching through the L3 implies additional challenges regarding the integration of the different languages in the curriculum. Some Basque schools have already gone in this direction (Elorza and Muñoa 2008).

The research studies discussed here on the acquisition of English as a third language and the age factor have aimed at comparing the effect of introducing English at different ages on different aspects of proficiency in English. Another interesting approach could be to compare bilinguals and multilinguals acquiring a third or additional language at different ages, but in some contexts it has become very difficult to make comparisons because of the spread of the early introduction of the third language. Another interesting question is to compare early multilinguals who are exposed to several languages from birth vs. consecutive multilinguals who have learned second and additional languages later in life.

6.   A multilingual approach to multilingual education

Research in the field of multilingualism indicates that multilingual education differs in many respects from bilingual education and also that this difference presents a great challenge to common frameworks of education. To solve the age question is just one out of many issues which need further investigation. When more languages are included in the school curriculum there are more possible combinations regarding the use of the different languages as media of instruction and the year in which the different languages are introduced. The data from the Basque Country discussed in this chapter indicate that an early introduction of a third language as a subject is not necessarily associated with better results, at least in cases in which exposure to the target language is very limited.

As already discussed above, a change of perspective in language acquisition research needs to be considered in order to arrive at more satisfying approaches to multilingualism in general and multilingual education in particular. To approach multilingualism from a monolingual perspective, as is still the case, has led to a number of problems, in particular with regard to the native speaker norm. Therefore Cook (e.g. 1991), following Grosjean (1985) who had introduced a bilingual or holistic view of bilingualism, suggested to move away from a monolingual perspective of competence by applying multicompetence in studies of L2 users (Cook 2003). Such a holistic view also postulates that the parts of a whole are dynamically interrelated and that they should not be discussed in isolation, as suggested by dynamic systems theory (Larsen-Freeman and Cameron 2008). Herdina and Jessner's dynamic model of multilingualism (2002) can also provide a theoretical framework for the concept of multicompetence (see also Cook 2006).

A multicompetence approach to teaching bi- and multilingual proficiency could be applied in multilingual education to meet a number of needs (Jessner 2008a). Emphasis has to be put on the development of linguistic awareness as one

of the core features of multilingual proficiency in teachers, learners and teachers as learners. One of the important issues which is related to multicompetence in the educational context is the assessment and testing of multilingual proficiency. The differences between bilingualism and multilingualism that have been highlighted in this chapter and elsewhere in this volume need to be applied to the assessment of different languages so that multilinguals are considered as such and not just compared to monolinguals speaking the different languages. It is certainly necessary to move away from a monolingual to a multilingual approach so as to enhance our knowledge of the processes taking place in multilingual education.

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Multilingualism resources

Associations, journals, book series, bibliographies and conference lists

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This chapter reviews resources for research on and practice of multilingualism and L3 acquisition. It presents and describes (1) associations, organizations, and networks, (2) research journals and magazines for the general public, (3) book series, and (4) research bibliographies devoted to the study and promotion of multilingualism as well as (5) listings of conferences that may include sessions or panels on issues of multilingualism and L3 learning. The chapter addresses graduate students, researchers, and practitioners who work in the area of L3 learning/teaching and multilingualism, who plan to start working on multilingualism or who would like to seek assistance, contacts or partners to join forces in a project related to multilingualism.

Keywords: multilingualism, third-language acquisition, resources, associations, journals

Overview

The last ten years have seen an immense increase in research and publications on multilingualism and multiple language acquisition. Milestones in this development have been the biannual *Conferences on Third Language Acquisition and Multilingualism*, the establishment of the *International Association of Multilingualism* (IAM) in 2003 and the appearance of the *International Journal of Multilingualism* (IJM) in 2004. Research has been disseminated through these venues, as well as through a series of books on multilingualism, some of them edited by founding members of the *IAM*, but also through other conferences and professional journals that share an interest in issues of multilingualism and third language (L3) acquisition. In this chapter, I review resources for multilingualism research and

practice that, I hope, will be of interest and assistance to graduate students, junior and senior researchers, and practitioners who work in the area of L3 learning/teaching and multilingualism, who plan to start a project on multilingualism or who would like to seek assistance, contacts or partners to join forces in a project related to multilingualism.

This resource guide is divided into the following six sections: Section (1) lists and describes associations, organizations, and networks devoted to the study and promotion of multilingualism. Section (2) on journals and magazines is subdivided into (2.1) refereed research journals that either focus on issues of multilingualism and L3 acquisition or include multilingualism and L3 acquisition as an area of interest, and (2.2.) non-refereed journals and magazines for professionals or the general public with interest in issues of multilingualism. Section (3) covers book series that publish work on multilingualism and L3 acquisition. Section (4) refers the reader to bibliographies on research into multilingualism and L3 acquisition, and section (5) presents listings of conferences that may include sessions or panels on issues of multilingualism and L3 learning. I decided not to include references to individual publications since that would require selection and necessarily an evaluation of these works which would go beyond the scope of this contribution. Interested readers are referred to the included bibliographies, journals, and book series.

The compilation of resources presented here is, of course, not exhaustive. It should, however, assist particularly graduate students and researchers who are new to the field in reviewing research relevant to their work in progress. It may also provide multilingualism researchers with a list of potential partners and publications that they could reach out to in order to further disseminate their research findings, and perhaps inform or consult parents, language teachers, program administrators, translators, software developers, language policy makers, or businesspeople who, in one way or another, deal with practical issues related to bi- and multilingualism.

1.   Associations, organizations, and networks

The section on associations, organizations, and networks only lists organizations that focus on multilingualism. It includes the association's URL address and a brief description of its goals and/or mission adopted from the association's website. One association is a professional organization that is primarily research-oriented, and two associations are practice-oriented, i.e., devoted to helping bi- and multilingual families. There are other associations that have sections and/or individual members working on issues of bi- or multilingualism. These are national

and international associations of foreign language teachers, associations of applied linguists, linguists, psychologists, speech therapists, interpreters/translators, or cognitive scientists which cannot be listed here.

International Association of Multilingualism (IAM)
URL: http://www.daf.tu-darmstadt.de/l3/association_1/index.de.jsp

The *International Association of Multilingualism* brings together researchers, practicing teachers, and language program administrators united by the common goal of promoting multilingualism. Studying multilingualism is seen as a means for better understanding all types of language acquisition and learning, maintenance and attrition. The association aims at fostering the cooperation between researchers of multilingualism; disseminate knowledge, methods, theories and models; create a forum for the discussion of issues related to multilingualism; improve research in multilingualism and applied linguistics; assist young researchers in their studies; and organize and sponsor conferences and meetings on a regular basis. The association publishes the *L3 Bulletin*, a quarterly electronic newsletter, and sponsors the *International Journal of Multilingualism*, which all members receive. The biannual meeting of the association takes place during the biannual *Conference on Third Language Acquisition and Multilingualism*.

The Bilingual/Bicultural Family Network (BBFN)
URL: http://www.biculturalfamily.org/

The *BBFN* is made up of families around the world who are raising their children in two or more languages and cultures. The group provides support and resources in the form of a website and an electronic newsletter as well as Seattle-based presentations, seminars and email contact.

The Multilingual Children's Association (MCA)
URL: http://www.multilingualchildren.org/

The (California-based) *Multilingual Children's Association* is focused on the benefits and challenges of raising bilingual and multilingual children. It is dedicated to encouraging and supporting bi- and multilingual families, answering questions, and building a community where families can share their thoughts and experiences. It is a free web-based guide with regularly updated resources, tips, and articles for multilingual parents and caregivers.

2. Professional journals and magazines

This section consists of two parts. The first part (2.1) lists peer-reviewed journals that are devoted to research in multilingualism. It starts with a description of journals that include *multilingualism* in their titles and journals that have *bilingualism* in their titles. The latter, however, define the term bilingualism very broadly and include multilingualism. Then follows an alphabetical listing of research journals that are broader or narrower in scope than bi- or multilingualism, but that refer to multilingualism as one area of interest within the journal's scope. The profiles of these journals are not described. Only the journals' names, publishers, and URLs are listed. Journals that are dedicated to the learning and teaching of a particular language (be it as a first or foreign language) are not included, although some of them may publish work on L3 learning and multilingualism. Colleagues who work on a particular language are likely to be familiar with the journals devoted to the learning and teaching of that language. The second part of this section (2.2) refers to non-refereed journals and magazines for professionals or the general public. The stated foci, objectives, and topics of these journals are adopted unchanged or edited from the editors' or publishers' descriptions of the journals on their websites, the *LINGUIST List*'s posting of journals, or from individual journal issues.

2.1   Peer-reviewed research journals

Journals on multilingualism

International Journal of Multilingualism (IJM)
Publisher: Routledge (Taylor & Francis Group)
URL: http://www.tandf.co.uk/journals/1479-0718

The *IJM* is a scientific journal dedicated to the study of psycholinguistic, sociolinguistic and educational aspects of multilingual acquisition and multilingualism. It goes beyond bilingualism and second language acquisition by focusing on different issues related to the acquisition and use of third or additional languages as well as sociolinguistic and educational contexts involving the use of more than two languages. The journal is concerned with theoretical and empirical issues in multilingualism such as early trilingualism, multilingual competence, multilingual education, multilingual literacy, multilingual representations in the mind or multilingual communities. In addition to full-length research reports, the *IJM* publishes state-of-the-art review articles and book reviews.

International Multilingual Research Journal (IMRJ)
Publisher: Lawrence Erlbaum Associates in cooperation with Arizona
            State University
URL: http://imrj.asu.edu/

The *IMRJ* publishes scholarly contributions to better understand and promote bi/multilingualism, bi/multiliteracy, and linguistic democracy, and to inform scholars, educators, students, and policy makers. It focuses on topics related to languages other than English as well as to dialectal variations of English. *The IMRJ* has three thematic emphases: The intersection of language and culture, the dialectics of the local and global, and comparative models within and across contexts. It includes interdisciplinary research that offers insights from linguistics, applied linguistics, education, globalization and immigration studies, cultural psychology, linguistic and psychological anthropology, sociolinguistics, literary studies, post-colonial studies, critical race theory and critical theory and pedagogy. In addition to articles on theoretical or empirical scholarship, the journal includes book reviews and two occasional sections: *Perspectives* and *Research Notes*.

Journal of Multilingual Communication Disorders (JMCD)
Publisher: Lawrence Erlbaum (2003–2006), now Routledge
            (Taylor and Francis Group)
URL: http://www.informaworld.com/smpp/title~content=t713693308~db=all

The *JMCD* was a scholarly journal published between 2003 and 2006 that specifically focused on speech-language pathology and communication disorders in multilingual populations. In 2007 it merged with *Clinical Linguistics and Phonetics* which is broader in scope. Topics of articles include differential language retention in aphasia, provision of assessment materials for bilinguals, establishment of language norms in multicultural populations and clinical management of multilingual clients. The journal also promotes research on languages that have not been the focus of study in communication disorders and research on normal acquisition in lesser-researched languages.

Journal of Multilingual & Multicultural Development (JMMD)
Publisher: Routledge (Taylor & Francis Group)
URL: http://www.tandf.co.uk/journals/0143-4632

The *JMMD* publishes articles on many aspects of multilingualism and multiculturalism. It includes contributions on theory, research reports, descriptions of educational policies and systems, and accounts of teaching or learning strategies and assessment procedures. It is increasingly interested in "macro" level work in

the sociology and social psychology of language and culture, for example studies on language planning and policy, on language maintenance and shift, and on the relationships among language and ethnic/national identities. The journal has a broad methodological scope – from historical survey to contemporary empirical analysis and includes reviews of recent books of interest in the field.

Journals on bilingualism

Bilingualism: *Language and Cognition (BLC)*
Publisher: Cambridge University Press
URL: http://journals.cambridge.org/

BLC is an international journal focusing on bilingualism from a cognitive science perspective. The aims of the journal are to promote research on the bilingual person and to encourage debate in the field. Areas covered include: bilingual language competence, perception and production, bilingual language acquisition in children and adults, neurolinguistics of bilingualism in normal and brain-damaged subjects, and non-linguistic cognitive processes in bilingual people.

International Journal of Bilingual Education & Bilingualism (IJBEB)
Publisher: Routledge (Taylor & Francis Group)
URL: http://www.tandf.co.uk/journals/1367-0050

The *IJBEB* publishes articles on languages in contact in the United States and articles on global issues, and on bilingualism and bilingual education in different countries around the world. The papers range from historical analyses of bilingual education in the US to the effects of the No Child Left Behind (2001) legislation. Particular themes include the language education of immigrant children, the achievement of bilingual children, and the changing nature of bilingual education.

International Journal of Bilingualism (IJB)
Publisher: SAGE
URL: http://ijb.sagepub.com/

The *IJB* is a forum for the dissemination of research on the linguistic, psychological, neurological, and social issues which emerge from language contact. The journal stresses interdisciplinary links and focuses on the language behavior of the bi- and multilingual individual. In addition to full-length research papers, it publishes case study reports, laboratory experiments and field observations, short scholarly notes, and critical review articles.

The Bilingual Research Journal (BRJ)
Publisher: National Association for Bilingual Education (NABE)
URL: http://brj.asu.edu/FAQ.html

The *BRJ* includes articles on bilingual education, bilingualism, and language policies in education (e.g., language assessment, policy analysis, instructional research, language politics, biliteracy, language planning, second language learning and teaching, action research, and sociolinguistics). As the official organ of the *National Association for Bilingual Education*, the journal focuses on matters related to the schooling of language minority children and youth in the United States, although it often includes articles on other countries as well.

The Bilingual Review/La Revista Bilingüe (BR/RB)
Publisher: Bilingual Review Press, Arizona State University
URL: http://www.asu.edu/brp/bilin/bilin.html

The *BR/RB* is a scholarly/literary journal that focuses on the linguistics and literature of bilingualism and bilingual education. It publishes scholarly articles, literary criticism, and book reviews as well as creative literature: poetry, short stories, essays, and short theater plays. Languages of publication are English and Spanish.

Research journals with bi- and multilingualism as one of various topics

Journal	Publisher	URL
AILA Review	John Benjamins	http://www.benjamins.com/
AILE (Acquisition et Interaction en Langue Étrangère)	L'association Encrages de l'Université de Paris VIII	http://aile.revues.org/
Annual Review of Applied Linguistics	Cambridge University Press	http://journals.cambridge.org/
Applied Language Learning	Defense Language Institute Foreign Language Center	http://www.dliflc.edu/
Applied Linguistics	Oxford University Press	http://applij.oxfordjournals.org/
Applied Psycholinguistics	Cambridge University Press	http://journals.cambridge.org/
Australian Review of Applied Linguistics	Monash University Press/ Applied Linguistics Association of Australia	http://www.epress.monash.edu/aral
BISAL – Birkbeck Studies in Applied Linguistics	University of London	http://www.bisal.bbk.ac.uk/

CALICO Journal	The Computer Assisted Language Instruction Consortium	https://calico.org/
Computer Assisted Language Learning	Routledge (Taylor & Francis Group)	http://www.tandf.co.uk/journals/
Current Issues in Language Planning	Routledge (Taylor & Francis Group)	http://www.tandf.co.uk/journals/
Dialog on Language Instruction	Defense Language Institute Foreign Language Center	http://www.dliflc.edu/
Estudios de Lingüística Aplicada	CELE, Universidad Autónoma de México	http://ianua.cele.unam.mx/publicaciones/
EUROSLA Yearbook	John Benjamins	http://www.benjamins.com/
Foreign Language Annals	American Council on the Teaching of Foreign Languages (ACTFL)	http://www.actfl.org/
Fremdsprachen Lehren und Lernen	Narr Francke Attempto	http://www.narr.de/
Heritage Language Journal	UCLA Language Resource Program	http://www.heritagelanguages.org/
IALL Journal of Language Learning Technologies	International Association for Language Learning Technologies	http://iallt.org/
Indian Journal of Applied Linguistics	Publisher: Bahri Publications	http://bahripublications.org/
Intercultural Pragmatics	Mouton de Gruyter	http://www.degruyter.de/
International Journal of Applied Linguistics	Wiley-Blackwell Publishing	http://www3.interscience.wiley.com/
International Journal of the Sociology of Language	Mouton de Gruyter	http://www.degruyter.de/
International Review of Applied Linguistics in Language Teaching (IRAL)	Mouton de Gruyter	http://www.degruyter.de/
ITL – International Journal of Applied Linguistics	Peeters Online Journals	http://poj.peeters-leuven.be/
JALT Journal	Japan Association for Foreign Language Teaching	http://jalt-publications.org/jj/
Journal for Language Teaching/Tydskrif vir Taalonderrig	South African Association for Language Teaching (SAALT)	http://www.ajol.info/

Journal of Applied Linguistics	Equinox Publishing Ltd.	http://www.equinoxpub.com/
Journal of Language Contact	Chaire Dynamique du langage – Institut universitaire de France	http://www.jlc-journal.org/
Language & Intercultural Communication	Routledge (Taylor & Francis Group)	http://www.tandf.co.uk/journals/
Language Awareness	Routledge (Taylor & Francis Group)	http://www.tandf.co.uk/journals/
Language Learning	Wiley-Blackwell Publishing	http://www3.interscience.wiley.com/
Language Learning Journal	Association for Language Learning	http://www.all-languages.org.uk/
Language Learning & Development	Psychology Press (Taylor & Francis Group)	http://www.tandf.co.uk/journals/
Language Learning & Technology	Language Learning & Technology	http://llt.msu.edu/
Language Policy	Springer	http://www.springer.com/
Language Problems and Language Planning	John Benjamins	http://www.benjamins.nl/
Language Teaching	Cambridge University Press	http://journals.cambridge.org/
Language Teaching Research	Sage Publications, Inc.	http://www.sagepub.com/
Language Testing	Sage Publications, Inc.	http://www.sagepub.com/
Multilingua	Mouton de Gruyter	http://www.degruyter.de/
Porta Linguarum	Univesidad de Granada	http://www.ugr.es/~portalin/
Reading in a Foreign Language	National Foreign Language Resource Center, University of Hawai'i at Manoa	http://nflrc.hawaii.edu/rfl/
ReCALL	Cambridge University Press	http://journals.cambridge.org/
Revista Española de Lingüística Aplicada (RESLA)	Asociación Española de Lingüística Aplicada (AESLA)	http://www.aesla.uji.es/resla
Revista Nebrija de Lingüística Aplicada a la Enseñanza de Lenguas	Departamento de Lenguas Aplicadas, Universidad Antonio de Nebrija, Madrid	http://www.nebrija.com/revista-linguistica/
Revue Française de Linguistique Appliquée	l'Association Française de Linguistique Appliquée	http://rfla-journal.org/
Second Language Research	Sage Publications, Inc.	http://www.sagepub.com/

Southwest Journal of Linguistics	Linguistic Association of the Southwest	http://clas.cudenver.edu/lasso/swjl.html
Studies in Second Language Acquisition	Cambridge University Press	http://journals.cambridge.org/
System	Elsevier Ltd.	http://www.elsevier.com/
The Canadian Modern Language Review	University of Toronto Press	http://www.utpjournals.com/
The Language Teacher	Japan Association for Language Teaching	http://jalt-publications.org/
The Mental Lexicon	John Benjamins	http://www.benjamins.com/
The Modern Language Journal	Wiley-Blackwell Publishing	http://www3.interscience.wiley.com/
Zeitschrift für Fremd-sprachenforschung	Deutsche Gesellschaft für Fremdsprachenforschung (DGFF)	http://www.dgff.de/en/zff.html

2.2   Journals for professionals or the general public

Multilingual: Language, Technology, Business
Publisher: Multilingual Computing, Inc.
URL: http://www.multilingual.com/

Multilingual is an information source for the localization, internationalization, translation and language technology industry. Its target audience is readers with technology-based multilingual needs. The journal covers topics ranging from technical internationalization to project management to language histories. It reviews new products and books and publishes articles on web site globalization, international software development, language technology translation, internationalization and localization (adapting products such as publications, hardware or software for non-native environments, especially other nations and cultures). Information and current news are also provided on the webpage and through an electronic newsletter, *MultiLingual NEWS*.

Multilingual Living Magazine (MLM)
Publisher: Bilingual/Bicultural Family Network
URL: http://www.biculturalfamily.org/

The *MLM* is a digital magazine for the general public published in PDF format. Its essays and articles discuss the multilingual and/or multicultural individual, family, community, or organization. The magazine publishes personal essays, tips, suggestions, insights, interviews, and research articles that shed light on issues related to multilingualism and multiculturalism. The magazine seeks original work that has

not yet been discussed fully in the multilingual and multicultural community but may also accept reprints of publications if they haven't been widely distributed.

The Bilingual Family Newsletter (BFN)
Publisher: Multilingual Matters
URL: http://www.bilingualfamilynewsletter.com/

This quarterly newsletter for the general public aims at helping bi- or multilingual families through its short informative articles on language learning, bilingualism, biculturalism, mother tongue, schooling, etc. It also publishes descriptions of how particular families have dealt with problems encountered in particular situations and how these were overcome. Readers are from mixed marriage families; expatriate families in embassies, schools, contract work etc.; immigrant families; students of language learning; and researchers in the field of bilingualism.

3.   Book series on bi- and multilingualism

The following section lists and briefly describes book series that are devoted to issues of multilingualism or that are interested in publications with an L3 perspective. The descriptions are adopted from the publishers' websites. Most of the series are published by Multilingual Matters (http://www.multilingual-matters.com/) which has strengthened its position as the leading publisher of books on bi- and multilingualism. John Benjamins (http://www.benjamins.com/) also offers series on research-based studies of multilingualism. Other international publishing houses that have produced books on bi/multilingualism and second language acquisition are Wiley-Blackwell Publishing (http://www.wiley.com/WileyCDA), Cambridge University Press (http://www.cambridge.org/), Taylor and Francis (http://www.taylorandfrancisgroup.com/), Oxford University Press (http://www.oup.com/), and Walter DeGruyter (http://www.degruyter.com/). Cascadilla Press (http://www.cascadilla.com/) has established itself primarily as a publisher of conference proceedings, but also offers books on bilingualism, second language acquisition, and linguistics.

Child Language and Child Development
Publisher: Multilingual Matters
URL: http://www.multilingual-matters.com/
General Editor: Li Wei (Birkbeck College, University of London)

This book series publishes interdisciplinary research on child language and child development from a cross-linguistic and cross-cultural perspective. Publication

topics include: language development of bilingual and multilingual children, acquisition of languages other than English, child development and disorder in multicultural environments, and education and healthcare for children speaking non-standard English.

Bilingual Education and Bilingualism (BEB)
Publisher: Multilingual Matters
Editors: Nancy H. Hornberger (University of Pennsylvania) and Colin Baker
          (Bangor University, Wales)
URL: http://www.multilingual-matters.com/

BEB is a multidisciplinary series that disseminates research on the philosophy, politics, policy, provision and practice of language planning, global English, indigenous and minority language education, multilingualism, multiculturalism, biliteracy, bilingualism and bilingual education. The series publishes overview or introductory texts; course readers, general reference texts; books on particular multilingual education program types; case studies; and professional education manuals.

Hamburg Studies on Multilingualism (HSM)
Publisher: John Benjamins
Editors: Peter Siemund, Barbara Hänel-Faulhaber, Christoph Gabriel
          (University of Hamburg)
URL: http://www.benjamins.com/

The *HSM* publishes research from colloquia on linguistic aspects of multilingualism organized by the Research Center on Multilingualism at the University of Hamburg. Topics include multilingual communication, language contact, historical aspects of multilingualism, bilingual child language acquisition, and multiple grammars in first and second language learners.

Linguistic Diversity and Language Rights
Publisher: Multilingual Matters
Editor: Tove Skutnabb-Kangas (Roskilde University, Denmark)
URL: http://www.multilingual-matters.com/

This series publishes theoretical and empirical research to promote multilingualism as a resource, the maintenance of linguistic diversity, and development of and respect for linguistic human rights worldwide. The series focuses on interdisciplinary approaches to language policy, drawing on sociolinguistics, education, sociology, economics, human rights law, political science, as well as anthropology, psychology, and applied language studies.

Multilingual Matters
Publisher: Multilingual Matters
Editor: John Edwards (St. Francis Xavier University, Canada)
URL: http://www.multilingual-matters.com/

The Multilingual Matters series publishes books on bilingualism, bilingual educa-
tion, immersion education, second language learning, language policy, and mul-
ticulturalism. A particular focus are "macro" level studies of language policies,
language maintenance, language shift, language revival and language planning.
Books in the series discuss the relationship between language in a broad sense
and larger cultural issues, particularly identity related ones.

Multilingualism and Multiple Language Acquisition and Learning
Publisher: Schneider Verlag Hohengehren
URL: http://www.paedagogik.de/
Editors: Britta Hufeisen (Technical University of Darmstadt) and
　　　　Beate Lindemann (University of Tromsø)

This series publishes scholarly work on the acquisition and teaching of third and
additional languages. It includes empirical and theoretical studies from psycho-
linguistic, sociolinguistic, educational, and interdisciplinary perspectives. Vol-
umes address the multilingual language learner and the processing of multiple
languages and/or issues of multilingualism in educational settings, such as in-
structional approaches to the teaching of third or additional languages.

Parents' and Teachers' Guides
Publisher: Multilingual Matters
URL: http://www.multilingual-matters.com/
Editor: Colin Baker (Bangor University, Wales)

This series provides advice and practical help for common questions of parents and
teachers. Bi- and multilingual education of children is one such issue. The books
are written in a style that is highly readable, non-technical and comprehensive.

Promoting Multilingualism Across Contexts (PMAC)
Publisher: Caslon Publishing and Consulting
URL: http://www.caslonpublishing.com/

The *PMAC* series publishes monographs, edited volumes, case studies, and text
books which illustrate how various types of educational institutions can and do
promote multilingualism at the local level. The focus of this series is on lan-
guage planning and language policy, language program development (bilingual

education, world language education, heritage language education), classroom discourse and interaction, assessment, program evaluation, and professional development of language educators.

Second Language Acquisition
Publisher: Multilingual Matters
Editor: David Singleton (Trinity College, Dublin)
URL: http://www.multilingual-matters.com/

This series publishes scholarly work on a variety of aspects of language acquisition and processing in situations where a language or languages other than the native language is involved. The volumes of the series offer both exposition and discussion of empirical findings and theoretical reflection. The intended readership is final-year undergraduates and postgraduate students working on second language acquisition projects and researchers and teachers whose interests include a second language acquisition component.

Studies in Bilingualism
Publisher: John Benjamins
Editors: Dalila Ayoun (University of Arizona),
         Robert DeKeyser (University of Pittsburgh)
URL: http://www.benjamins.com/

The focus of this series is on psycholinguistic and sociolinguistic aspects of bilingualism. This entails topics such as childhood bilingualism, psychological models of bilingual language users, language contact and bilingualism, maintenance and shift of minority languages, and socio-political aspects of bilingualism.

4.   Bibliographies on L3 learning and multilingualism

The three bibliographies below are listed on the *L3 Homepage* and can all be found under: http://www.daf.tu-darmstadt.de/l3/association_1/index.de.jsp.
     They focus on research into the learning and processing of three or more languages, but also include other publications with potential relevance to the study of multilingualism and multiple language acquisition. The general L3 bibliography (compiled by Britta Hufeisen and Nicole Marx) is a comprehensive list of publications on L3 learning and multilingualism and very broad in scope. The second bibliography (compiled by Nicole Marx) lists research published in German on issues of multilingualism and L3 learning (not necessarily on the German language). The third bibliography (compiled by Laura Sánchez) presents research

published in Spanish with annotations in English. The three bibliographies are continuously updated; and authors of publications on multilingualism and L3 learning are encouraged to submit their works (references plus off-prints, photocopies or title page) to be included in the bibliographies.

5.   Conference listings

The following five conference lists, very broad in scope, include announcements of conferences on applied linguistics and linguistics, bi- and multilingualism, foreign language learning/teaching/education, technology in language learning/ teaching, translation and interpretation, and other topics. Some of these conferences may include sessions or interest sections on multilingualism and L3 acquisition or may have an annual conference theme related to issues of multilingualism. Conference organizers are encouraged to announce their conferences and/or call for papers at these sites.

The two regularly-held conferences that are probably most relevant to multilingualism researchers are the *International Conference on Third Language Acquisition and Multilingualism* (focusing on the learning and use of three or more languages, and held biannually since 1999) and the *International Symposium on Bilingualism* (very broad in scope on many issues of bi- and multilingualism, and held biannually since 1997).

IDV Kalender (Internationaler Deutschlehrerverband)
URL: http://www.dadkhah.de/idv/Hauptseiten/index.htm

Institut Universitari de Lingüística Aplicada (Universitat Pompeu Fabra),
Agenda de Congressos
URL: http://www.iula.upf.es/serdocum/llistes/congrefca.htm

The LINGUIST LIST, Calls and Conferences List
URL: http://www.linguistlist.org/callconf/index.html

The Official AILA Conference Calendar (sponsored by SYSTEM:
An International Journal of Educational Technology and Applied Linguistics)
URL: http://www.solki.jyu.fi/yhteinen/kongress/start.htm

Roy Cochrun's Conference List for Linguists, Translators, Interpreters
and Teachers of Languages
URL: http://www.royfc.com/confer.html

It is hoped that this compilation of resources will be of assistance to students and researchers who work in the field of multilingualism and L3 learning and that it will contribute to the collaboration and consolidation of partnerships between researchers of related disciplines and between researchers and practitioners devoted to bi/multilingualism worldwide.

Crossing the second threshold

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In this final chapter we shall highlight once again the crucial steps in the exploration of multilingualism (1), recapitulate the salient developments in L3 and multilingualism research which were revealed in this volume (2) and attempt to look into the future of research into third and multiple language acquisition and multilingualism (3).

1.   The first threshold crossed

There was a period in which the monolingual perspective prevailed, when users of two or more languages were seen as the sum of two or more monolinguals, and their proficiency in languages other than their mother tongue was strictly measured against that of native speakers of the second or third language. Now, the holistic view on bilingualism and bilingual individuals has finally gained currency.

The agreement to the norm famously promoted by the works of Grosjean (1985, 1992) and Cook (1992, 1996) was rightly considered to be an important threshold in the development of research in bilingualism and SLA, as well as TLA and multilingualism.

The implications of crossing this threshold can be seen in a fairly wide acceptance of the differences between monolingualism and bilingualism and between those between the acquisition of the first language and the learning/acquisition of the second language. This, in turn, has led to dissimilar methods of teaching and approaches towards curricula planning when compared to those aimed at learners of L1, as well as to setting realistic aims for the bilingual learners in accordance with their linguistic and communicative needs. For the most part, the prevalent view is that of an optimistic and positive perception of bilinguals as speakers possessing unique competencies which are unavailable to those who use exclusively their mother tongues. A range of forms of second language teaching and bilingual education has been established in many parts of the world. The monolingual hypothesis has been abandoned in theory, if not in all the educational practices.

The last twenty years, especially the last decade, i.e. the end of the twentieth and the beginning of the twenty-first century, constitute the manifestly intensive period of research into multilingualism and multiple language acquisition. The maturing of multilingualism research is irrefutable. This is clearly evident in the volume and in the concentration of research on multilingual rather than bilingual topics, with research developing in parallel to and closely reflecting the unfolding of the multilingual reality. Studies on diverse multilingual settings and various multilingual communities have been carried out in the contexts of Europe, Asia, the Middle East, Australia and New Zealand as well as in North and South America. In addition to investigations into multilingual use, schooling and acquisition in traditionally multilingual areas such as India (e.g. Mohanty 1994) or Israel, significant efforts have been made to explore multilingualism in the European context. A number of meaningful studies have been carried out in Ireland, Spain, Switzerland, UK, the Netherlands, Poland, Malta and other countries on a range of topics treating trilingualism and multilingualism. Among the issues studied were the multilingual lexicon and aspects of multilingual storage, processing and retrieval, multilingual educational practices and language teaching, the attitudes to each of several languages in use by multilinguals, the patterns of societal use of languages, multilingual didactics, cross-linguistic influence, early second language acquisition and more (Cenoz 2009; Cenoz, Hufeisen and Jessner 2001, 2003; Cenoz and Gorter 2005; Gabryś-Barker 2005; Hoffmann and Ytsma 2004; Hufeisen and Neuner 2004; Hufeisen 2004; Lasagabaster and Huguet 2006; Lüdi 2007; Muñoz 2006). Investigation into receptive multilingualism in Scandinavian countries and the possibility of extending the application of this form of multilingualism to the Romance languages was explored (cf. ten Thije and Zeevaert 2007). As a result, a critical mass of data has been accumulated, and the processes of conceptualization of this information as well as the growth of theories and models are taking place (see for example, Aronin and Singleton 2008a, 2008b, 2008c; De Bot 2004; Herdina and Jessner 2002; Hufeisen 1998; Meißner 2004). We seem to approach the second, and probably, not less significant threshold, heralding the advance to its next level, of research on the use of and on the acquisition of multiple (more than two) languages. The shift is traceable in the titles of important recent publications in which the move to an interest which goes 'beyond bilingualism' is repeatedly indicated (such as *Looking Beyond Second Language Acquisition: Studies in Tri- and Multilingualism* edited by Cenoz, Hufeisen and Jessner in 2001 and its second edition in 2008; or De Angelis (2005) *The Acquisition of Languages Beyond the L2: Psycholinguistic Perspectives*).

The fact that the world is bi- and multilingual rather than monolingual is taken for granted in many locations such as India and Africa. In many other places, however, this fact was not, in the past, seen as obvious – but is now being

accepted. Not without resistance, people are coming to grips with the idea that bi- and multilingual communities, groups and individuals, rather than monolingual ones, constitute the norm and it is mostly multilinguals and multilingual collective bodies that act on the global scene.

This understanding and its implications in everyday life, in societal interactions and policies and activities of educational establishments as well as in research, represent a crucial point in changing the perspective.

2.   Findings of this volume

Separately and collectively, the chapters of this volume underpin the ideas, many of which originated from bilingualism research, and are valuable for multilingualism research. The retrospect has highlighted the seminal works which have become the 'classics' in multilingualism research. The contributions also display some of the novel elements in approaching the second threshold referred to above. Several important points are listed below:

– There are significant differences between bilingualism and multilingualism. While the evidence is not yet decisive, the findings received so far are fairly convincing in showing that in many important ways an additional, third language acquisition is different from second language acquisition. There is no doubt that bilingualism and multilingualism share many important features and that, in many ways, multilingualism draws from bilingualism. The contributors to this volume found it important to clearly define trilingualism and third language acquisition as separate from bilingualism and second language acquisition.

– Multilingualism is complex in all its manifestations and aspects. The complexity of multilingualism is progressively greater than that of bilingualism and crucial implications ensue. Contributors refer to the complexity of various occasions where this characteristic of multilingualism is central in order to tackle multilingual education (Cenoz and Jessner) or to define multilingualism (Kemp), to ponder on methods of research (Aronin and Hufeisen), to deal with a diversity of languages and linguistic groups in Europe (Franceschini) or to examine the phenomenon of transfer between the several languages of an individual (Ó Laoire and Singleton). Indeed, complexity is an inherent property of multilingualism. Notably, as opposed to the period 'before the second threshold', research increasingly concentrates precisely on these intricate knots. Not so long ago (as noted by Franceschini in this volume and by Jessner 2006: 15), it was often the case that multilinguals were the participants of studies under the label of 'bilinguals', because the researchers did not feel it

important to inquire about other languages possibly existing in the speakers' repertoires. Moreover, quite a number of interesting research questions were considered unsolvable because of the multiple factors involved. Conversely we are witnessing an increase in research in which expressly more than two languages are involved and in which the peculiarity of processes taking place between the three or more languages constitutes the core of the research. Still more studies on the cross-linguistic interactions on more languages are needed in order to advance the field.

– By capturing the pulse of current situation of multilingualism, research exhibits its salient developments: a shift in norms (as discussed above) and an emergence of new focal issues (Aronin and Hufeisen). As the contributions of this volume have summed up earlier, current research also testifies the importance of the following issues:

– cross-linguistic influences between non-native languages (Ó Laoire and Singleton, De Angelis and Dewaele);
– refining the thesaurus of multilingualism, defining and explicating key notions and terms (Kemp, Franceschini, Aronin and Hufeisen);
– age-related investigations have been popular all along, but recent developments called forth the particular interest in the value and exact age of an early start of foreign and second language learning (Cenoz and Jessner);
– the emergence of a tangible base of knowledge, activities on disseminating the knowledge gained on multilingualism, a number of active associations and organizations dealing with multilingualism is highlighted (Peter Ecke).

3.   What's next?

Over the years, research in multilingualism has made steady and cumulative progress and its advance warrants more investigation in the field. Besides more empirical studies in the realm of psycholinguistics, sociolinguistics and applied linguistics, and theory building, as have been described in this volume, new directions of research are crystallizing. We will see an increasing number of regional investigations concentrating on specific areas which imply specific forms of multilingualism and multiple language acquisition with types such as multiple semi-lingualism, with various types of skills in different languages and with manifold types of migration which form the linguistic landscape in a given region.

We will also see an increase in studies which focus on the learners and speakers themselves (such as, for example, Belcher & Connor 2001). These individuals give insights into their personal multilingualisms, their language repertoires and their linguistic experiences. Todeva and Cenoz (in print), for instance, introduced a volume with narratives by linguistically aware subjects who tell their individual language stories which the editors commented on. Research in multilingualism and multiple language acquisition will continue to offer interesting and new study areas worth exploring.

As we cross the second threshold we are looking forward to new insights into the fascinating and ever unfolding universe of multilingualism.

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Name index

Subject index

In the *AILA Applied Linguistics Series* the following titles have been published thus far or are scheduled for publication:

6   **ARONIN, Larissa and Britta HUFEISEN (eds.):** The Exploration of Multilingualism. Development of research on L3, multilingualism and multiple language acquisition. 2009. vii, 167 pp.

5   **GIBBONS, John and M. Teresa TURELL (eds.):** Dimensions of Forensic Linguistics. 2008. vi, 316 pp.

4   **FORTANET-GÓMEZ, Inmaculada and Christine A. RÄISÄNEN (eds.):** ESP in European Higher Education. Integrating language and content. 2008. vi, 285 pp.

3   **MAGNAN, Sally Sieloff (ed.):** Mediating Discourse Online. 2008. vii, 364 pp.

2   **PRINSLOO, Mastin and Mike BAYNHAM (eds.):** Literacies, Global and Local. 2008. vii, 218 pp.

1   **LAMB, Terry and Hayo REINDERS (eds.):** Learner and Teacher Autonomy. Concepts, realities, and response. 2008. vii, 286 pp.