

Third International Conference on
**Language
Attrition**
(ICLA3)

Book of Abstracts

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University of Essex
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Conference programme

Tuesday, 5.7.2016

Time	Title	
9:30-10:00	Opening	Prof. Roger Hawkins, Dean of the Faculty of Social Sciences
10:00-11:00	Brain signatures of L1 attrition: Evidence from event-related potentials	Karsten Steinhauer
11:00-11:15	Coffee break	
11:15-11:45	Prepositions in Western Icelandic: Evidence from map task data	Nicole Dehé
11:45-12:15	Language attrition in multilingual development: An Austrian perspective	Ulrike Jessner & Manon Megens
12:15-14:00	Lunch and posters	
14:00-14:30	Attrition profiles: What CDST can and can't tell us about attrition	Conny Opitz
14:30-15:00	The Role of L1 Literacy in Language Maintenance Among Immigrant Adolescents	Elena Schmitt
15:00-15:30	Error rates in L1 attriters: The impac of age at emigration and of continued L1 useUse	Rasmus Steinkrauss & Monika S. Schmid
15:30-16:00	Coffee	
16:00-17:00	Aging attriters: how methodological challenges can help construct bilingual theories	Merel Keijzer
17:15-18:30	Reception	

Wednesday, 6.7.2016

Time	Title	Speaker
9:00-10:00	Language attrition and intergenerational transmission	Silvina Montrul
10:00-10:15	Coffee break	
10:15-10:45	Language attrition in bilingual first language acquisition: Longitudinal evidence from preschoolers	Annick De Houwer, Mark H. Bornstein & Diane Putnick
10:45-11:15	Language attrition and reactivation in childhood. A case study	Cristina Flores
11:15-11:45	L1 attrition in a multidialectal setting: Input and intake in L1 Spanish null and postverbal subjects	Glyn Hicks & Laura Dominguez
11:45-12:15	An investigation of maturational constraints for L1 attrition: L1 attainment of Turkish-English bilinguals in the UK	Tugba Karayayla & Monika S. Schmid
12:15-12:45	Investigating L1 attrition effects in Sylheti-English bilinguals from the London Bengali community	Kathleen McCarthy & Esther de Leeuw
12:45-14:00	Lunch and posters	
14:00-14:30	Investigating the neurocognitive correlates of L1 attrition: Changes in morphosyntactic processing	Kristina Kasparian, Francesco Vespignani & Karsten Steinhauer
14:30-15:00	Gender in second language acquisition and first language attrition: An EEG study	Monika S. Schmid, Sanne M. Berends, Christopher Bergmann, Susanne Brouwer, Nienke Meulman, Bregtje Seton, Simone Sprenger & Laurie A. Stowe
15:30-16:00	Coffee	

16:00-17:00	Conflict and attrition between languages and neural consequences	Jubin Abutalebi
19:00	Conference dinner, Wivenhoe House (on campus)	

Thursday, 7.7.2016

Time	Title	Speaker
9:00-10:00	The consequences of native language regulation for bilingualism and second language learning	Judith Kroll
10:00-10:15	Coffee break	
10:15-10:45	L1 tone attrition among bilinguals in an L2 speaking environment	Xiangjie Cao
10:45-11:15	Immigrants' speech: is phonetic attrition a necessary precondition for phonological attrition to occur?	Rosalba Nodari, Chiara Celata & Naomi Nagy
11:15-11:45	Adaptation or attrition? L1 rhoticity in American English-German late bilinguals	Marie-Christin Himmel & Barış Kabak
11:45-12:15	Gradient strength of NPIs in Greek attriters	Anastasios Chatzikonstantinou, Polyxeni Pata & Douglas Saddy
12:15-14:00	Lunch and posters	
14:00-15:00	On the state of the art in language attrition research	Monika S. Schmid & Barbara Köpke
15:00-15:30	Closing	

Poster Presentations

Transfer of metacognitive reading comprehension strategies in Brazilian Portuguese and in English as a second language

Diane Blank Bencke, IFRS Farroupilha/PUCRS, *Lilian Cristine Hubner*, PUCRS

Individual L1 attrition: Permanent or temporary changes in speakers' native language?

Gloria Chamorro, University of Kent, *Antonella Sorace* & *Patrick Sturt*, University of Edinburgh

The impact of language choice on L1 use and maintenance: The case of Tunisian bilingual speakers

Leila Chargui, Faculty of Arts & Humanities of Sousse

The significance of z-scores in language attrition

Marco Chowdhury, Ludwig-Maximilians-Universität München

Restructuring of L1 competence in Spanish-French late bilinguals: The case of semantic extensions

Lyanne Ahumada Ebratt, Octogone-Lordat, *Barbara Köpke*, Octogone-Lordat

Interpersonal variation in late L1 attrition and its implications for the competence/performance debate

Dobrinka Genevska-Hanke, Universität Oldenburg

Attrition at the syntax-discourse interface: The case of heritage speakers of Greek in Chile

Aretousa Giannakou, University of Cambridge

Effects of attrition on the acquisition of the classifier structure in Cantonese

Rachel Ting Yan Kan, University of Essex

A longitudinal investigation into L1 attrition in Steffi Graf

Esther de Leeuw, Queen Mary University of London, *Monika Schmid*, University of Essex

The attrition of French as a foreign language (FFL): The case of Greek learners

Kleopatra Mytara, *Barbara Köpke* & *Olga Theophanous*, Octogone-Lordat

I am not an immigrant, but I still lose my L1: What is lost?

Kiranmayi Nallan Chakravarthi, Foundation Center, Ministry of Health

Ab initio language learning and the summer break

Conny Opitz & *Sarah Smyth*, Trinity College Dublin

Cognitive fluency and problem-solving mechanisms in the context of third language attrition

Sandra Reitbrecht, University of Vienna

Abstracts for Plenary Sessions

Conflict and attrition between languages and neural consequences

Jubin Abutalebi
University San Raffaele Milan, Italy

Bilingualism leads inevitably to conflicts and attrition between two language systems. These conflicts and attritions are resolved by the intervention of specific neural systems orchestrating attentional and executive control. As I will argue, resolving such attritions will shape individual neurocognitive systems underlying general cognitive functioning. As a long-term effect, bilingualism will hence affect brain structure as well, i.e., inducing experience-related structural changes in terms of increased grey or white matter density or even increasing the connectivity between areas mediating language processing and executive control. The primary goal of my presentation is to provide an overview of the functional and structural changes induced by bilingualisms (i.e., the neural consequences of bilingualism), and, to illustrate specifically how eventually these brain changes may protect the human brain from cognitive decline during aging. As I will conclude, increased attrition and conflict between languages will lead to increased neural changes.

Aging attriters: How methodological challenges can help construct bilingual theories

Merel Keijzer
University of Groningen

(First) language attrition has long established itself as a subfield of the broader realm of bilingualism studies. As such, it can feed off well-researched bilingualism constructs such as transfer, and (bi)directional language interference. But attrition can itself also feed back into bilingual theorizing; so many confounds come together in the single field of language attrition - often stemming from methodological choices that are made – that when properly acknowledged can inform bilingual constructs that are currently fiercely debated such as the nature of language and cognitive control (cf. Kroll & Bialystok, 2013; Hartsuiker, 2015). More specifically, L1 attrition studies have typically adopted a number of inclusion criteria for subject recruitment, including a minimum age of 15 at the time of immigration from the L1 environment and a minimal length of 10 years of residing in the L2 environment, to allow attrition to also pertain to structural language domains (Köpke & Schmid, 2004). As a consequence, L1 attrition subjects are often older adults, a mean age of 60+ at the time of testing being very common. That attrition is then hard to tease apart from healthy aging effects is not typically acknowledged. Mira Goral – in 2004 – addressed this very important issue: first language attrition is often compared with first language acquisition (Berko-Gleason, 1982; Keijzer, 2007, 2010), but very rarely with normal healthy-aging processes of language decline (but see de Bot & Weltens, 1991). We know that certain cognitive functions decline in advanced age: processing speed, working memory and inhibitory control are all reported to suffer (Burke & Shafto, 2008). Older immigrants are often anecdotally reported to return to their first language and show L2 attrition. It has been suggested that this language

reversion pattern may have been misinterpreted and instead reflects a lack of cognitive control in advanced age, surfacing as bidirectional language interference (Clyne, 2011). In this paper, I will – using other people’s work and my own attrition datasets – tie in a number of previously singularly addressed constructs in attrition research: aging immigrants, language attrition, and language reversion, to arrive at a dynamic view of language attrition, and ultimately show how what are seen as methodological challenges in attrition research help shed light on the nature of bilingualism constructs such as language and cognitive control.

The consequences of native language regulation for bilingualism and second language learning

Judith F. Kroll

University of California and Riverside/Pennsylvania State University

A compelling body of research now demonstrates that proficient bilinguals are not monolingual-like in their native language. Bilinguals learn to regulate the native language to enable proficient second language (L2) performance and to coordinate the effective use of the two languages. In this talk, I review the scope of first language (L1) regulation and then consider how the ability to adapt the use of the L1 may play a role in producing the cognitive and neural changes that have been reported for proficient bilinguals. I then propose a new hypothesis about late L2 learning: successful adult L2 learners are individuals who are able to effectively change the native language to accommodate the L2 and to negotiate the cross-language competition that characterizes proficient bilingualism. The hypothesized changes may involve processing costs that initially slow the native language and make performance more error prone, make learners less sensitive to some features of the native language, and that open the native language to the influences of the L2. I review evidence from studies of language processing and brain imaging and consider the role of language immersion and its relation to language attrition. On the view I will present, language attrition may reflect an extreme consequence of the high level of plasticity associated with learning and using two languages.

Language attrition and intergenerational transmission

Silvina Montrul

University of Illinois at Urbana-Champaign

Bilingual native speakers can show different degrees of ability in one of their native languages because language proficiency can be profoundly shaped by the environment. This is particularly true for heritage speakers of immigrant languages whose mastery of the heritage language in early adulthood is often significantly different from that of both native speakers in the home country and their immigrant parents. Adult immigrants with more than ten years of immersion in a second language environment can lose their status as native speakers when they undergo first language attrition, forgetting words and grammatical features of their native language. Yet, the extent and range of this loss is much smaller compared to that of their children, the second generation. Infrequent language exposure and use of the heritage language during childhood and adolescence lead to interruption in the traditional route of language development in the heritage speakers. However, the possibility also exists that, if the first generation of immigrants shows signs of attrition, these patterns may also affect the quality of the input and the language transmitted to the second generation.

In this talk, I present data from Spanish and Hindi as heritage languages in the United States showing that the Spanish and Hindi heritage speakers exhibit simplification and omission of differential object marking (DOM) in production and judgment data, but only the Spanish-speaking immigrants show signs of attrition of the same phenomenon. While it is natural to conclude that unlike the Hindi-speaking immigrants, the Spanish-speaking adult immigrants may have transmitted a different (attrited) DOM grammar to the Spanish heritage speakers I consider the opposite possibility instead: that the heritage speakers of Spanish may have contributed to the attrition of DOM in the parental generation. I discuss how the changing nature of input throughout the lifespan of heritage speakers may contribute to the acquisition, maintenance, and potential change of the language at the individual level and across generations.

Brain signatures of L1 attrition: Evidence from event-related potentials

Karsten Steinhauer

McGill University, School of Communication Sciences and Disorders

Event-related brain potentials (ERPs) provide an excellent method to study the temporal dynamics of language processing in real-time. This includes the fascinating neurocognitive changes that occur while a new language is being acquired. In the past 20 years, ERP research investigating sentence processing in second language (L2) learners has led to a number of models that try to address these neural changes and the role of modulating factors such as age of acquisition (AoA), language proficiency, first language (L1) background, the type of language exposure (e.g., implicit versus explicit training environments), as well as inter-individual differences in learning trajectories and processing preferences. An important limitation of this research has been that AoA and L2 proficiency levels are typically (negatively) correlated in L2 learners, such that AoA effects attributed to a “critical period” may instead simply reflect the level of proficiency. Attriters, whose late-acquired L2 has become the dominant language, may shed important new light on the respective role of these factors.

Whether and to what extent L1 attrition is characterized by similar neurocognitive changes, and whether such changes may mirror those in language acquisition – but “in reverse” – remains an open empirical question that only few recent investigations have begun to address. My talk will primarily focus on a series of large-scale ERP studies from our lab that probe brain signatures for lexical-semantic and morpho-syntactic processes in Italian immigrants who have lived for many years in Montreal (Canada), who describe English as their predominant language, and who report problems in their L1 (Italian). ERP online data have been collected for both their L1 (Italian) and their L2 (English) and are compared to the ERP profiles of English and Italian monolinguals, as well as to English-Italian bilinguals who acquired the two languages in the reverse order. Among other advantages, this complex design allows us to investigate how factors such as (i) ‘being bilingual’ (versus monolingual), (ii) age of language acquisition (AoA), and (iii) proficiency levels in each language, interact and modulate neurocognitive mechanisms underlying online language processing.

Abstracts for Oral Presentations

Tuesday, 5.7.2016

Prepositions in Western Icelandic: Evidence from map task data

Nicole Dehé

University of Konstanz

Western Icelandic (WIce; also known as North American Icelandic) is a heritage language spoken in parts of the US and Canada (see Arnbjörnsdóttir 2006, 2015). The present paper focuses on the use of prepositions in this language, including both lexical and morpho-syntactic aspects. The data is taken from a map task study carried out in three locations in Manitoba/CA in August 2014. Overall, spoken data from 15 speakers (9 female, 6 male; age range 64-89) entered the analysis. They typically grew up in Manitoba with Icelandic as their first language, and English becoming dominant at the age of 6 due to Canadian language policy in schools. The map task corpus is particularly valuable because the map task study was carried out both in Iceland and in Canada, thus allowing for direct comparison between the use of prepositions in the two languages, and in very similar linguistic contexts.

Among the main results are the following. First, there are a number of lexical differences between WIce and MIce concerning prepositions. Fine-grained lexical distinctions in MIce may be conflated in WIce. For example, the directional prepositions *í* ('to, into'), *á* ('to, onto, into') and *að* ('to, towards, up to') may all be replaced by *til* ('to, towards'), see (1), and *á* in WIce may be used for MIce directional *að*, *í* and *á* as well as stative *hjá* ('at, with'). Moreover, Icelandic *af* ('from, of(f)'), phonologically similar to English 'of', may replace MIce stative *á*, when having a meaning similar to English 'of'; see (2). As already observed by Arnbjörnsdóttir (2015:82), the preposition *fyrir* ('for') is often used like English *for*, when Modern Icelandic would use other lexical forms or no preposition at all.

(1) Use of *til*

a. Ég ætla að fara *til* Landakirkja. (WIce)

Ég ætla að fara *í* Landakirkju. (MIce)

'I intend to go to/into Landakirkja [Land church]'

b. Og ég ætla að hlaupa til Myndastytta. (WIce)

Og ég ætla að hlaupa að Myndastyttunni. (MIce)

'And I intend to walk to(wards) the M-statue.'

(2) Use of *af*

Og það er á horninu *af* Mílagata og Mánagata. (WIce)

Og það er á horninu *á* Mílagötu og Mánagötu. (MIce)

'And it is on the corner of Mílagata and Mánagata.'

Second, from a morpho-syntactic perspective, MIce prepositions are case-assigners and case distinctions may directly distinguish between meanings. For example, in MIce, stative

prepositions such as *í* and *á* select dative case (e.g. *í garðinum* 'in the garden'), while directional *í* and *á* select accusative case (e.g. *í garðinn* 'into the garden'). These distinctions may be lost in WIce due to the use of case forms deviant from MIce or due to lack of inflection; see (3). Moreover, MIce verbs selecting nominal complements inflecting for case may occur in WIce as verbs selecting prepositional phrases, where the prepositions take over the case function.

- (3) a. Ég vil fara í Melabúðin [def-NOM]. (WIce)
 Ég vil fara í Melabúðina [def-ACC]. (MIce)
 'I want to go (in)to the Melabúð [a shop].'
- b. Þú ert á Myndagarðurinn núna [def-NOM]. (WIce)
 Þú ert í Myndagarðinum núna [def-DAT]. (MIce)
 'You are in the Myndagarden now.'

The paper will also discuss how these results fit in with previous results for WIce (Arnbjörnsdóttir 2015, 2006) and more generally for North American heritage languages.

References:

- Arnbjörnsdóttir, Birna. 2006. *North American Icelandic: The Life of a Language*. University of Manitoba Press.
- Arnbjörnsdóttir, Birna. 2015. Reexamining Icelandic as a heritage language in North America. In Janne Bondi Johannessen & Joseph C. Salmons (Eds.), *Germanic Heritage Languages in North America: Acquisition, attrition and change* (18 ed., pp. 72–93). Amsterdam: Benjamins

Language attrition in multilingual development: An Austrian perspective

Ulrike Jessner & Manon Megens
 Innsbruck University

Over the past thirty-five years, a large amount of research has been carried out on the non-pathological gradual decline of a language, language skills or portions thereof in an individual over time. While most of these studies have mainly focused on attrition of the first language(s) in migrants, recent years have seen a renewed interest in the same phenomenon in languages that have been learned as second or foreign languages. Still, these studies singly focused on one language, leaving out other/further languages the participants might be familiar with.

From a DCT-perspective the multilingual system is a complex dynamic system which consists of smaller, nested sub-systems. Attrition is regarded as an integral and normal part of language development itself. Developing and maintaining any language system(s) requires effort; keeping up two or more disproportionately more so. Multilinguals, in whom multiple language (sub)systems compete for both time and cognitive resources, can therefore be considered as particularly vulnerable to language attrition. On the other hand, multilinguals are believed to develop additional (cognitive) abilities that are not found in monolinguals, or even in bilinguals. It is possible that this multilingual awareness may actually inhibit or slow language attrition, or help language users to compensate for the effects of attrition more easily and effectively.

The LAILA Project (Linguistic Awareness in Language Attriters) examines the development of multilingual awareness and foreign language proficiency after formal language learning

ceases when participants graduate from high school. The Austrian study takes a dynamic system approach, looking not at attrition in one, but in several languages in interaction and so aims to better understand the process of language attrition from a multilingual perspective. In our presentation we will present the study and some of its results.

Attrition profiles: What CDST can and can't tell us about attrition

Conny Opitz
Trinity College Dublin

This paper looks at L1 attrition from the perspective of complex dynamic systems theory (CDST) in the larger context of multilingual development. Specifically, it asks how we may understand and assess the contribution of external and internal factors to the process and outcome of attrition. CDST emphasises the interconnectedness of subsystems within the overall system and their context-dependence, the perpetually changing, variable and emergent nature of systems, as well as the non-linearity and basic non-predictability of developmental processes. Consequently, it critiques traditional research designs and statistical methods of analysis, which, in their quest for generalisability, tend to ignore individual variability and resort to idealisation. This in turn requires a fundamental rethinking of the very notion of predictor variables, and poses the question of how to move beyond individual findings.

One solution proposed by Larsen-Freeman (2015) and followed up in this paper is to identify particular configurations of systems, 'archetypes' with 'signature dynamics'. These result from the fact that complex systems, depending on their relative state of development and degrees of perturbation over time, tend to settle in attractor states (Hiver, 2015). Thus, notwithstanding the intrinsic dynamism of complex systems, different periods show more or less stability and change.

This paper presents different attriter profiles from a study of adult first-language attrition and discusses which, if any, (constellations of) factors may be associated with one or another profile. While the study itself was a cross-sectional investigation, semi-structured interviews provide a longitudinal, if retrospective, dimension. Together, the findings show that despite considerable differences between individuals, some common trends may be discerned, though never in an absolute way.

References:

- Larsen Freeman, D. (2015). Ten 'Lessons' from Complex Dynamic Systems Theory: What is on Offer. In Z. Dörnyei, P. D. MacIntyre & A. Henry (Eds.), *Motivational Dynamics in Language Learning* (pp. 11-19). Bristol: Multilingual Matter.
- Hiver, P. (2015). Attractor States. In Z. Dörnyei, P. D. MacIntyre & A. Henry (Eds.), *Motivational Dynamics in Language Learning* (pp. 20-28). Bristol: Multilingual Matter.

The role of L1 literacy in language maintenance among immigrant adolescents

Elena Schmitt

Southern Connecticut State University

Recent analyses of incomplete acquisition and child first language attrition (L1) have focused largely on morpho-syntactic and lexical deficiencies in the first language (L1) developed under the influence of a different majority language (L2) (e.g., Pire and Rothman, 2009). This study investigates L1 development from the perspectives of morpho-syntactic, lexical, and pragmatic changes in teenage speakers during immigration. Data have been collected from six Russian speaking teenagers (3 girls and 3 boys) who arrived in the U.S. between ages 1;6 and 2;0, have grown up in Russian speaking families that maintained Russian as the family language, and share similar socio-economic backgrounds. Three of these six families developed Russian literacy skills in their children. The participants were recorded at 12 years of age and 15 years of age. They completed a series of tasks, including C-tests, grammaticality judgments, story telling, and picture description.

Preliminary results indicate significantly higher type/token ratios in L1 of literate participants compared to the group without Russian literacy. Morphological system of L1 remains largely intact among literate participants. In addition, these speakers use dynamic word order and target-like verbs of motion. These features differ significantly in illiterate speakers of Russian. While lexical and morpho-syntactic results continue to inform the field of how L1 changes in early bilinguals who differentially maintain it, this study identifies differences in pragmatic use of immigrant L1 between literate and illiterate groups. Literate speakers distinguish between respectful and familiar address forms, they interrogate cultural stereotypes, and stay with socio-pragmatic norms of conversation in Russian. Finally, the paper proposes several generalizations about language development in incomplete acquisition/childhood attrition of L1 including morpho-syntactic changes toward less markedness, the use of more frequent features of L1, narrowing of meanings of L1 lexical items, and a shift in pragmatics to match those of the dominant language.

Error rates in L1 Attriters: The impact of age at emigration and of continued L1 use

Rasmus Steinkrauss & Monika S. Schmid

University of Groningen and University of Essex

A recurrent finding in first language attrition research is that the age (AaE) at which attriters switch from an L1 to L2 dominant context appears to impact their amount of attrition. Pre-puberty attriters with an AaE below 12 seem to be susceptible to a more severe amount of attrition than attriters with a higher AaE. While there are reports of a complete loss of the L1 in the pre-puberty group (Pallier et al., 2003; Pierce, Klein, Chen, Delcenserie, & Genesee, 2014; Ventureyra, Pallier, & Yoo, 2004), adolescent/adult attriters often still show a level of L1 proficiency similar to that of non-attriters (Schmid, 2014). However, the evidence for this AaE effect is mainly based on studies that have either looked at child or at adolescent/adult attriters only. This makes firm conclusions difficult.

The current study takes a step towards closing this gap by looking at 73 L1 German attriters in an L2 English context with an AaE of range of 7-17 years and a length of residence between 46 and 70 years. Transcripts of free L1 speech (1300-1800 words) were coded for morphosyntactic errors; independent variables include AaE, AaE Group (pre- vs post-puberty) and amount of L1 use (1-7 as judged on the basis of informations for each subject). Mixed-model logistic regression analyses revealed that there is no significant effect of AaE

or AaE Group on error rates; instead, the best model includes amount of L1 use in addition to AaE Group. Additional analyses indicate that the professional use of the L1 might be a particularly important factor moderating attrition effects.

The results do not confirm the earlier reports of a clear difference between pre- and post-puberty attriters. AaE alone cannot predict the severity of attrition effects. Instead, L1 use, in particular professional L1 use, seems to play an important role, confirming Schmid (2007). The relevance of these results for the proposals of a critical period in attrition by, e.g., Pallier et al. (2003) and Hyltenstam et al. (2009) is discussed.

References:

- Hyltenstam, K., E. Bylund, N. Abrahamsson & H.-S. Park (2009). Dominant language replacement; The case of international adoptees. *Bilingualism: Language and Cognition* 12.2, 121-140.
- Pallier, C., Dehaene, S., Poline, J.-B., LeBihan, D., Argenti, A.-M., Dupoux, E., & Mehler, J. (2003). Brain Imaging of Language Plasticity in Adopted Adults: Can a Second Language Replace the First? *Cerebral Cortex*, (2), 155–161.
- Pierce, L. J., Klein, D., Chen, J.-K., Delcenserie, A., & Genesee, F. (2014). Mapping the unconscious maintenance of a lost first language. *Proceedings of the National Academy of Sciences*, 111(48), 17314–17319.
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- Ventureyra, V. A. G., Pallier, C., & Yoo, H.-Y. (2004). The loss of first language phonetic perception in adopted Koreans. *Journal of Neurolinguistics: An International Journal for the Study of Brain Function in Language Behavior and Experience*, (1), 79.

Wednesday, 6.7.2016

Language attrition in bilingual first language acquisition: Longitudinal evidence from preschoolers

Annick De Houwer¹, Mark H. Bornstein² & Diane Putnick²

Erfurt University¹ and Eunice Kennedy Shriver National Institute of Child Development²

Although not always described as such, attrition is a person's use of a language at levels that are not age appropriate whereas previously that person had used the same language at age appropriate levels (attrition can also include other phenomena, like loss of vocabulary, which does not necessarily affect age-appropriateness). Attrition is usually investigated in mature individuals. Our study offers documentation of patterns of attrition in preschoolers. This longitudinal study investigated the linguistic profiles of 24 children exposed to two languages from birth in the home. Children constituted a homogeneous group in terms of gender (12 males), sibling status (firstborn), socioeconomic level (middle-class), familial background (children lived with both their parents), residence (Flanders, Belgium), and languages (Dutch and French). Children were assessed at 20 months and at age four, when they were all attending a Dutch-speaking preschool.

According to detailed parent report, all children produced words in both languages at 20 months. All children except one produced French and Dutch words at age appropriate levels. When children were four years of age, videorecorded structured interactions in the home offered ample opportunity for speaking both languages. Children's levels of observed proficiency in each language were scored using a four category coding system: (0) did not speak the language at all, (1) produced just single-word utterances, (2) haltingly produced only brief sentences, and (3) fluidly produced complex sentences (this is the age appropriate level for both Dutch and French). Two bilingual researchers independently coded the material. Their codes matched nearly perfectly.

Unsurprisingly, all children were fluent in the language used at preschool: they all fluidly produced complex Dutch sentences. There was a range of variation in the level of French proficiency. Half the sample fluidly produced complex sentences in French. Five children produced only hesitant simple French sentences. Four children produced only single words in French. Three children spoke no French.

Only half of the children showed an age appropriate level of French proficiency at age four, whilst they had all produced age appropriate levels of French words at 20 months. Thus half of the children ceased to develop French at the rate one would have expected at 20 months. This high proportion of attrition compared to only a little more than two years previously is striking. Its documentation for a group of such young children is unique.

Although for many children Dutch was a stronger language both at 20 months and at four, ten children knew more French than Dutch words at 20 months. The attrition of French, then, cannot necessarily be explained by previous language balance patterns. Rather, it is more likely that changes in input patterns have an important role to play. We will investigate the possible role of children's changing child care arrangements. Regardless of the outcome of these explorations, this study demonstrates that even children growing up in seemingly optimal circumstances for bilingual language development cannot automatically be expected to be a proficient bilingual at preschool age. Attrition can happen very early indeed.

Language attrition and reactivation in childhood. A case study

Cristina Flores
Universidade do Minho

This paper reports the data of a longitudinal study of language attrition and reactivation in a bilingual girl who grew up in (Germany with German as dominant L2 and Portuguese as heritage language. At age 9 the girl moved to Portugal, experiencing a dominance shift from German to Portuguese. At age 13, after three years of complete lack of contact with German, the child moves back to Germany.

The results show differential effects of language attrition during the analyzed 18-months period of L2 deprivation, starting with first effects five months after return in interface domains (subject realization) and in the case system. Thirteen months later also gender marking, verb placement and verb morphology was significantly affected. Data reveal that i) lack of input in childhood may affect several linguistic properties, even those that are acquired at early stages of development (e.g. verb placement in German); ii) some properties are more vulnerable, being affected earlier than others (pronominal subjects). Data collected after re-immersion in the German environment (11 month after return to Germany at age 13) show that also reactivation of the attrited language follows a differential path. The girl does no longer show vulnerabilities in the domains of verb placement and verbal morphology; however, subject expression and case morphology still show attrition effects. These observations indicate that the domains that are first affected by language attrition may be the most difficult to reactivate.

The findings emphasize the dynamic nature of childhood bilingualism. They show i) strong effects of attrition when input reduction occurs in childhood (Kaufman & Aronoff, 1991); ii) that attrition effects may be the consequence of access problems and increased susceptibility to crosslinguistic influence; iii) these effects are mostly overcome if input is regained (Ecke, 2004). However, reactivation seems to occur in phases, similarly to language acquisition.

L1 attrition in a multidialectal setting: Input and Intake in L1 Spanish null and postverbal subjects

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Putnam and Sánchez (2013) present a model of heritage language grammars which seeks to accommodate non-targetlike L1 grammatical knowledge in heritage speakers within a generative framework. We extend this model to the general case of L1 attrition in late sequential bidialectal speakers to explain changing knowledge and use of Spanish null and postverbal subjects within a multidialectal community.

Rejecting the view that heritage grammars represent incomplete or deficient grammars due to insufficient input (e.g. Montrul, 2008), Putnam and Sánchez (2013) posit a distinction between Input and Intake, the latter a psycholinguistic process consisting of the "acquisition and manipulation of Input" which influences any potential restructuring of the heritage grammar, leading to potentially varied outcomes for L1 grammatical competence in heritage speakers. In this paper we explore the consequences of this model for explaining attrition attested in the 'fully acquired' mature L1 grammars of Caribbean Spanish speakers who have moved to multidialectal Caribbean/Mainland Spanish-speaking communities in the US. The L1 grammar of these late sequential bidialectal speakers is demonstrably influenced by prolonged exposure to dialectal variation in Spanish within the community. For instance,

Cuban Spanish speakers in Miami – under the influence of Mainland Spanish – are now using significantly higher rates of null subjects, correlating with significantly higher realisation rates of postverbal subjects. Dominguez and Hicks (in press) demonstrate that this correlation – reminiscent of the formal connection classically encoded in the 'null subject parameter' – supports a grammatical restructuring analysis via reassembly of the functional features of the inflectional head T in the L1.

Yet the puzzle concerns why frequency changes in the input between grammatical variants available in both varieties should so readily engender a reconfiguration of formal feature specifications for these speakers. We pursue the explanation that the nature of intake – rather than simply input – is important to the feature reassembly and is qualitatively different in nature when the 'L2' is not a distinct language but a distinct dialect. A combination of factors may account for a heightened sensitivity to the input frequencies, leading to targetlike restructuring. First, the bidialectal Spanish speakers' grammars already permit both null and overt subjects; the difference concerns the different feature specifications that underlie each option in the two varieties. Second, the 'L2' lexical feature specifications available for the relevant functional head are a proper subset of their L1's (in the analysis of Dominguez and Hicks). Third, the L1 grammar already provides a complex and sensitive relationship between syntactic subject types and the subtle interpretive properties that they correlate with, necessitating the greater degree of processing for comprehension on the part of the hearer that Putnam and Sánchez argue is crucial to restructuring.

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An investigation of maturational constraints for L1 attrition: L1 attainment of Turkish-English bilinguals in the UK

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It has been widely acknowledged in the L1 attrition (L1A) field that L1 competence of late bilinguals remains unimpaired (Schmid 2013) despite reported subtle changes in different linguistic domains at both production and processing levels (e.g. Yagmur 1997; Schmid 2002; Gurel and Yilmaz 2011). This intact knowledge has presumed to be maintained due to the fact that their bilingualism (AoA) starts upon full acquisition of their L1; raising questions about potential underlying maturational constraints in L1 attrition (Kopke and Schmid 2004). These claims however, are not fully possible to confirm unless ultimate L1 performance of different bilingual groups with differing AoA is compared. Despite having been widely studied in SLA, effects of AoA have remained understudied in L1A with only a few exceptions denoting the significant predictive role AoA plays for L1 attrition (Ammerlaan 1996; Pelc 2001). The phenomenon of whether maturational age effects are also operative for

L1 attrition has been addressed only later. Bylund (2009a, 2009b) proposed and demonstrated age 12 as the age after which L1 becomes resistant to attrition even when accompanied by prolonged lack of contact and earlier AoAs correlating positively with the degree of attrition (also Montrul 2008). This has yet to be confirmed by further research with different language pairs. The current study addresses the potential presence and selectivity of maturational constraints by comparing pre-puberty (AoA 7-11) and post-puberty (AoA>12) adult Turkish immigrants' L1 production in the UK to that of monolinguals. The investigation is carried out for general L1 proficiency, L1 accent and L1 production in two grammatical categories: complex embedded clauses and evidentials. The analyses of data collected from 30 attriters in each group point to AoA playing a predictive selective role in L1A and age 12 as a cut-off point thus echoing previous results. The findings are discussed with reference to previous SLA and L1A research on maturational constraints.

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Investigating L1 attrition effects in Sylheti-English bilinguals from the London Bengali community

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Within multilingual cities, such as London, there are large communities of individuals who acquire their languages in diverse environments. The aim of this study was to examine first (L1) and second language (L2) lexical stress realisation in Sylheti-English bilinguals from the London Bengali community, with a focus on potential L1 attrition in the late bilinguals.

Twenty-seven speakers from the London Bengali community, who all had Sylheti as an L1 and English as an L2, took part in the study. Speakers were divided into three groups: (1) First-generation late bilinguals (n=11, mean AoA=21 yrs); (2) First-generation early bilinguals (n=9, mean AoA=6 yrs); (3) Second-generation early bilinguals (n=6), born in London. Twelve control speakers were recorded in London: Standard Southern British English (SSBE) monolingual speakers (n=6), and Sylheti native speakers (n=6), the latter of which had arrived in the UK a maximum of three months before the recording and had received no formal English training.

Using a picture naming task, speakers were recorded producing disyllabic Sylheti and English words with penultimate syllable stress in the carrier sentences “abar ____ kho” and “Say ____ again”. In English, a primary acoustic cue of lexical stress realisation is a higher pitch in the stressed syllable in relation to the neighbouring unstressed syllables (Reetz & Jongman, 2009). Although very little is known about Sylheti, it has been suggested that the opposite holds true (see Reetz & Jongman, 2009; Hayes & Lahiri, 1991). Maximum F0 measurements were extracted for the penultimate and ultimate vowel in the target words (Mennen, Mayr and Morris, 2015). The difference between maximum F0 of the penultimate and ultimate vowel was expressed in semitones, such that a positive value indicated a rise from the penultimate syllable to the ultimate syllable (i.e. predicted for Sylheti monolinguals), and a negative value indicated a fall from the penultimate syllable to the ultimate syllable (i.e. predicted for English monolinguals).

Our initial results indicated that the Sylheti monolinguals indeed realised lexical stress in the penultimate syllable of the target word by means of a lower pitch than in the ultimate syllable, whilst in the English monolinguals the opposite was the case. The bilinguals’ Sylheti and English stress pattern varied dependent on their language background. Specifically, the late bilinguals realised Sylheti and English stress by means of a smaller rise from the penultimate syllable to the ultimate syllable than the Sylheti controls. In contrast, the second-generation bilinguals realised Sylheti and English stress by means of a fall, approximating the English stress pattern. Interestingly, the first-generation early bilinguals displayed a distinct pattern for English and Sylheti, in the direction of the monolinguals. These findings have implications for our understanding of L1 attrition effects within large multilingual cities, and, more generally, language variation in diverse communities.

Investigating the neurocognitive correlates of L1 attrition: Changes in morphosyntactic processing

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Although research on multilingualism has revealed continued neuroplasticity for language-learning beyond what was previously expected [1], it remains controversial whether – and to

what extent - L1 attrition may be observed in the morphosyntax of adults who have lived in an exclusively monolingual L1 context until adulthood. Moreover, it is an important but understudied question whether specific neurocognitive processes involved in language are susceptible to change [2,3], and how such processing differences may (or may not) be reflected in attriters' linguistic behavior.

Using event-related-potentials (ERPs), the real-time processing of Italian relative-clauses was examined in 24 Italian-English adult migrants whose predominant language had shifted from Italian to English and who unanimously reported experiencing attrition in Italian, compared to 30 non-attriting native-speakers in Italy (controls). Relative clauses allow us to test the processing of complex morphosyntax, as well as the possibility of changes in grammatical preferences and processing patterns due to cross-linguistic influence and L2 experience [4]. Both languages allow V-NP-subject (a) and NP-V-object (d) orders, whereas V-NP-object (b) and NP-V-subject (c) structures are ungrammatical in English. Moreover, it has been shown that Italian readers rely on semantic cues and subject-verb agreement for sentence interpretation, whereas English readers rely primarily on word-order [5]. Based on these cross-linguistic differences, we expected attriters to process those Italian sentence constructions that clash with English as ungrammatical, and not to benefit from cues such as number agreement or strong agent-patient relationships with semantically-biasing verbs (e.g., policeman/arrest/thief).

In their acceptability-judgment ratings (1-5 scale) at the end of each sentence, attriters differed from non-attriting Italian speakers only on the two word-orders that are permissible in Italian but not in English, giving these sentences significantly lower ratings. The ERP results for the V-NP conditions (b vs. a) revealed qualitative group differences in processing strategies: while Italian native-controls elicited an N400 (processing semantic cues for interpretation) followed by a late P600 effect (850-1050ms), attriters did not show an N400 effect and elicited an earlier and more broadly-distributed P600 (650-850ms). Interestingly, the N400 effect in native-controls was larger in speakers who gave higher ratings to the V-NP-object sentences, compatible with the idea that native-Italians use semantic cues such as agent-patient likelihood to arrive at the interpretation of the sentence. In contrast, attriters seem to process these sentences as morphosyntactic violations, eliciting large P600s earlier than Controls, with larger P600 amplitudes associated with lower acceptability ratings, longer length of residence in the L2-environment and higher L2-English proficiency scores. The ERP results for the NP-V conditions (c vs. d) also revealed significant group differences: in response to NP-V-subject sentences, which are infrequent but grammatical in Italian, native-Controls elicited a frontal positivity (550-650 ms) followed by a late posterior P600 (900-1050), consistent with a garden-path effect [6]. Conversely, attriters elicited an early negativity (300-400ms) followed by a numerically larger frontal positivity, as well as a P600 with an earlier onset (650-900ms) and less posterior distribution than in native-Controls. Larger P600 amplitudes were associated with lower acceptability ratings in both groups. However, within the attriters, lower acceptability ratings and higher L2-English proficiency scores were associated with a larger early negativity.

These findings provide the first neurophysiological evidence of processing changes in adult attriters' morphosyntax, revealing not only quantitative but also qualitative differences in the underlying neurocognitive mechanisms. Attriters with limited L1-exposure/use and increasing L2 dominance are influenced by their English grammar although reading exclusively in Italian, and the extent of this influence within attriters is modulated by experiential factors.

- a. V-NP-Subject: Il poliziotto (S) che arresta i ladri (O) registra i nomi. (The policeman (S) that arrests the thieves (O) registers the names.)
- b.* V-NP-Object: I ladri (O) che arresta il poliziotto (S) attendono in macchina. (The thieves (O) that arrests the policeman (S) wait in the car.)
- c.* NP-V-Subject: Il poliziotto (S) che i ladri (O) arresta registra i nomi. (The policeman (S) that the thieves (O) arrests registers the names.)
- d. NP-V Object: I ladri (O) che il poliziotto (S) arresta attendono in macchina. (The thieves (O) that the policeman (S) arrests wait in the car.)

*Conditions that would be ungrammatical if translated into English

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Gender in second language acquisition and first language attrition: An EEG study

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Gender is one of the most challenging features for second language acquisition, since it requires the online integration of an unpredictable lexical property of the noun on the one hand and morphological agreement on the other. This paper reports the findings from an EEG investigation of grammatical gender in German and Dutch, contrasting bilingual and monolingual processing. In order to examine whether variability in the processing of gender violations by bilingual speakers can be ascribed to the more complex task of managing two linguistic systems (bilingualism effect) on the one hand or to the order of acquisition, modulated by biographical factors such as age at onset (second language effect), we will compare advanced second language learners with different native languages (all L1s are typologically distant from German/Dutch, some of them do and some of them do not encode gender grammatically) who began acquiring German or Dutch between the ages of 4 and 32, native speakers of German/Dutch who have lived in an English-speaking setting for upwards

of 7 years and were aged 20 years or older when they emigrated and predominantly monolingual controls.

We present the results from an EEG experiment in which 96 German/Dutch sentences were auditorily presented to assess responses to gender violations on highly frequent masculine and neuter nouns. 48 sentences contained determiner-noun combinations and 48 determiner-adjective noun combinations. Pairings of grammatical-ungrammatical sentences were created by swapping the masculine and neuter determiners. The experiment also contained 48 sentences testing a different grammatical construction (verb agreement) and 134 filler sentences, so that the overall proportion of correct sentences was 74.1%. We discuss the findings from the group comparisons in the context of hypotheses of representational deficits in L2 acquisition vs. theories of crosslinguistic interference.

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L1 tone attrition among bilinguals in an L2 speaking environment

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Late bilinguals who continue to use their native language while using an L2 every day and/or residing in the L2 community have been shown to exhibit changes in their L1. The majority of the research on changes in L1 use and possible L1 attrition has focussed on the lexicon, morphology and syntax (Schmid 2002), but in recent years, attention has moved to phonology. Tonal attrition has received the least attention.

In Mandarin, tone is used to differentiate lexical items or to express morphological functions. There are four tones in Mandarin: the level first tone (T1), the rising second tone (T2), the falling-rising third tone (T3), and the falling fourth tone (T4). Among these, the tone considered to be the most complex is T3. Tone sandhi also applies to T3 where for two adjacent T3s, the first T3 is realized as T2 (Yip 1980). T2 and T4 show tone variations with different tones followed. In trisyllabic sequences, the middle T2 changes to T1 if the first syllable is T1 or T2 and the final syllable is a random tone from four tones. Several studies over the past decade of Mandarin bilinguals have revealed attrition of tone by L1 Hakka Chinese speakers living in a Mandarin-speaking area (Yeh, 2011). Little is known, however, about what happens when a tone language speaker moves to a non-tone language environment.

The present study addresses whether there are changes in tone production and perception by Mandarin speakers living in a non-tone language speaking environment (the UK) for varying lengths of time. The study compares 50 Mandarin-English late bilinguals who had been living in the UK from three months to more than five years with Mandarin monolinguals (only with minimal English exposure at school) living in mainland China. Their perception and production of four tones at word and sentence level were tested by a listening comprehension task, an interview task, and a story-telling task for both formal and more casual speech. A questionnaire collected data on speakers' use of and contact with both languages.

The data were analysed acoustically using Praat (version 5.4.22) speech analysis software (Boersma & Weenink 2015), and statistical measurement revealed that late bilinguals who had lived in the L2 environment for over five years showed signs of attrition on T3, tending to omit the raising part in production, and the first T3 in tone sandhi. The bilinguals' four tones showed a tendency to merge, rendering them less distinctive than the control group's tone production. Age of arrival, amount and type of L2 exposure and of L1 contact showed correlations with tone attrition. Moreover, some patterns mimic tone acquisition (Li and Thompson 1976; Lin 1985; Chang 2014) indicating that markedness plays a role in both acquisition and attrition.

Immigrants' speech: is phonetic attrition a necessary precondition for phonological attrition to occur?

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The Heritage Language Documentation Corpus is a large corpus of sociolinguistic interviews conducted in Toronto with speakers in several generations of eight heritage languages (Nagy 2009, 2011). In the study by Nagy & Kochetov (2013), the speech of Ukrainian, Russian and Calabrian Italian immigrants has been analysed, focusing on the VOT realization in word-initial pretonic /p t k/ across generations. The three languages differ from English to the extent that they feature short-lag VOT in voiceless obstruents. The results showed that although the VOT of the selected Ukrainian and Russian speakers drifted away from the monolingual short lag toward the long lag of English, the cross-generational change was overall not detectable for Italian (with a slight change in the opposite direction from the first to the second generation instead). The authors speculated about the possible reasons of such different behaviour, pointing out that the speakers of the study were all highly fluent in Italian and suggesting that also the strong institutional support for Italian in Toronto may have played a role in reducing the contact with English.

In this study, we further investigate the apparent lack of attrition in the VOT realization of HLVC Italian immigrants, with the general aim of disentangling the role of language-internal and language-external factors. This abstract focuses on language-internal factors and the comparison between the L1 and L2 phonological systems.

Calabrian-accented Italian (or Calabrian Italian) ‘inherits’ voiceless stop aspiration from the local Italo-Romance dialect. As a consequence, Calabrian people when speaking Italian produce long-lag VOT for geminate or post-sonorant voiceless stops, in both unstressed (Falcone 1976, Soriano 1996) and stressed syllables (Nodari forth.). Aspiration in stressed syllables is also present in English, though with a different distribution: in Calabrian Italian, aspiration in unstressed syllables is typical. Table 1 summarizes the phonological differences between Calabrian Italian and English aspiration.

			Calabrian Italian	Toronto English
Stressed syllables	C.CV	gemination	[sta'kk ^h are] <i>staccare</i> ‘to disconnect’	[does not exist]
		cluster	[staŋ'k ^h are] <i>stancare</i> ‘to tire’	[m't ^h end] <i>intend</i>
	CV			[pə't ^h eɪtəʊ] <i>potato</i> , [p ^h ɪn] <i>pin</i>
Unstressed syllables	C.CV	gemination	['stakk ^h o] <i>stacco</i> ‘I disconnect’	[does not exist]
		cluster	['staŋk ^h o] <i>stanco</i> ‘tired’	

Table 1. Long-lag VOT in Calabrian Italian vs. English, with examples. Empty cells indicate non-aspirated stops. Grey cells indicate the contexts that have been investigated in the present study.

We analyse the production of voiceless stops in stressed CV and unstressed C.CV syllables by 37 Calabrian heritage speakers of the HLVC (11 are first generation or immigrants, 19 are second generation and 7 are third generation). The selected stops are acoustically inspected and classified as either long- or short-lag stops (i.e., aspirated or non-aspirated). The results show that the speakers vary according to whether the distribution of aspirated stops follows the Calabrian pattern (aspiration in unstressed C.CV, no aspiration in stressed CV) or the English one (aspiration in stressed CV, no aspiration in unstressed C.CV), or even a mix of the two. The Calabrian pattern is found in 1st generation immigrants, in the majority of 2nd and in a subgroup of 3rd generation immigrants. The English pattern is attested in another subgroup of 3rd generation immigrants. Finally a few speakers of the 2nd and 3rd generation immigrants show a mixed pattern. In some of them aspiration is realized according to the English pattern, but a small number of high frequency words (such as *tutto* ‘all’, *perché* ‘because’) are produced with unstressed syllable aspiration. Other speakers show aspiration according to the Calabrian pattern, but a small number of high frequency grammatical words (such as *per* ‘for’, *con* ‘with’) are produced with stressed syllable aspiration. The data thus show that there is a cross-generational shift in the way the speakers realize long-lag VOT for stops. Most speakers categorically rely on the Italian or the English pattern, the latter being found in 3rd generation speakers only. Unstressed syllable aspiration can persist in the speech of the 3rd generation in limited to lexicalized instances.

In conclusion, although previous studies have shown no phonetic variation in the cross-generational comparison of VOT duration, this study suggests that the distribution of aspirated stops in the relevant contexts can change according to a (near-)categorical shift from Italian to English norms and that the adoption of English norms in Italian speech can be accompanied by the fossilization of Italian norms in selected lexical contexts. Not always is phonological attrition cued by phonetically visible modifications.

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Adaptation or attrition? L1 rhoticity in American English-German late bilinguals

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Rhotic sounds are subject to a great deal of crosslinguistic variation. For example, English postvocalic /r/ is subject to variable realization patterns (full, semi- and non-rhotic; e.g. Feagin 1990), both synchronically and diachronically. Furthermore, bilinguals have been shown to exhibit rhotic realizations in their non-rhotic L1 in contexts in which postvocalic /r/ is traditionally vocalized (e.g. in non-rhotic varieties of German, see Ulbrich & Ordin 2014), indicating that language attrition can impact the phonetic patterns of /r/. However, structural and socio-affective factors yielding attrition effects on /r/, and whether these mirror synchronic and diachronic variation of postvocalic /r/ remain largely unknown. Also, the directionality of cross-language influence in phonetic and phonological attrition is understudied. To bridge these gaps, we asked whether non-rhoticity in the L2 can influence rhoticity in the L1 (that is, the opposite direction of Ulbrich & Ordin 2014) and investigated potential distributional (phonological) and phonetic changes in the degree of rhoticity in the L1 (American English) under the long-term influence of a dominant non-rhotic L2 (German).

Twelve American English-German late bilinguals (mean LOR = 25 years) as well as a matched American English monolingual control group performed various tasks in their L1. We included both linguistic factors (e.g. phonetic quality of the preceding vowel) as well as socio-affective and contextual factors (e.g. frequency of L1 use, task type). Auditory coding was used to analyze the presence/absence of rhoticity in tokens containing a potential postvocalic /r/ (e.g., *start*). Those [Vr]-sequences classified as rhotic in the auditory coding were subjected to a further acoustic analysis measuring *F3* contour (lower *F3* indicates a higher degree of constriction and thus a higher degree of rhoticity).

Our results show that L2 non-rhoticity impacts L1 rhoticity albeit constrained by various factors: (1) Linguistic factors such as vowel type and syllable position determine the gradient absence of /r/ in the L1 of the bilinguals on a par with patterns attested in semi-rhotic English varieties; (2) socio-affective factors do not constitute reliable predictors of the degree of rhoticity in bilinguals; (3) task type (free vs. controlled speech) and (perceived) interlocutor trigger different degrees of /r/-lessness, and (4) bilinguals produce [Vr]-sequences with higher *F3* values in the vowel portion of the sequence, and thus produce vowels with a lower degree of /r/-coloring, unencumbered by any of the independent variables such as task type.

We take our results to show that L1 derhoticization can take place due to a dominant non-rhotic L2 and suggest that segmental attrition takes place both at the level of phonology and phonetics: Changes to the phonological properties of L1 rhoticity are adaptive processes guided by task type and potential interlocutor. This type of change in phonological grammars is uniformitarian in nature, mirroring the fate of English postvocalic /r/ both synchronically and diachronically. Phonetic change, however, is an instance of across-the-board L2-induced drift and as such more pervasive and unconstrained.

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Gradient strength of NPIs in Greek attriters

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NPI licensors in Greek come with different strength as opposed to English, and this incompatibility is preserved in the linguistic performance of Greek attriters who distinguish between direct and indirect licensing. This is not the case for direct licensors themselves, where Greek attriters pattern with English monolinguals, showing no particular preference in their use, unlike Greek monolinguals who consider negation the strongest licensing environment by far. These results only partly confirm the postulations of Interpretability Hypothesis.

Background: Negative Polarity Items (NPIs) including Greek NPIs are known to be licensed by negation as well as downward (DE) and nonveridical expressions that may not be explicitly negative (Giannakidou, 2006). She postulates that there is an additional class of licensors like ‘only’ and emotive factive verbs that are not negative at the LF, but may license NPIs indirectly. Based on Zwarts (1996), Chatzikonstantinou et al. (2015) show experimentally that in Greek each licensor is associated with different degree of acceptability whereas this is not the case in American English (Xiang&Giannakidou, 2015) due to the different semantic status of the respective NPI licensors. Given this difference in strength among English and Greek NPIs, we extend the research in attrited Greek native speakers.

Study: We explore Greek attriters’ linguistic performance in the use of the NPI *pote* (ever) under the presence of direct and indirect licensors, following the tenets of Interpretability Hypothesis (Tsimplici et al., 2004), according which L1 attrition is expected in phenomena where semantic and pragmatic factors come into play.

Experimental Task: 16 native speakers of Greek, who immigrated in their adulthood and since then live in an English speaking community for more than 7 years, participated in a pilot study. They were presented with 30 statements-pairs in Greek and were asked to point on a 1-5 scale whether the second statement, that contained the NPI *ever* in Greek, is an acceptable continuation of the first:

Statement1 : Special effects are expensive.

Statement2: No/Very few/I was amazed/only directors ever used special effects.

Given that NPIs call for syntactic accessibility under an overt c-command relation as well as the appropriate semantic/pragmatic property, and if IH is on the right track, we expect that Greek attriters will not be consistent in maintaining the semantic and pragmatic mechanisms of NPI licensing, since English and Greek monolinguals differ systematically in their performance.

Results: Pairwise comparisons with Bonferroni correction reveal that the difference between the direct licensors is not significant ($p > 0.05$). This differentiates attriters from Greek monolinguals and brings them closer to English speaking monolinguals. Therefore the semantic profile of NPIs seems to be vulnerable to attrition, as IH predicts. On the other hand, the indirect licensors ‘only’ and emotive factives exhibit below threshold acceptability rate. This is consistent both with their indirect character of licensing and the respective performance of Greek monolinguals. Indirect licensing as pragmatic mechanism seems to remain intact in Greek attriters, with pairwise comparisons among the different kinds of licensing environments showing that the difference between direct and indirect licensing is significant at $p < 0.005$. This finding contradicts the predictions of IH.

Licenser	Negation	Very few	only	emot.factive	no-licenser
Dependency	direct	direct	indirect	Indirect	no-licensing
score	3.5	3.64	2.24	2.45	1.44

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Abstracts for Poster Presentations

Transfer of metacognitive reading comprehension strategies in Brazilian Portuguese and in English as a second language

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This paper aimed to develop a theoretical and an empirical alliance among metacognition, linguistic transfer (the transposition of knowledge from a firstly acquired language by the learner to his/her performance in the target language, ODLIN, 1989) and reading comprehension. It aimed to verify types and frequency of metacognitive reading strategies use in L1 and L2 in two university courses with different formation backgrounds, besides of observing the possible manifestation of the linguistic transfer phenomenon, on metacognitive reading strategies. An empirical study has been implemented with 16 university students of a Language and Literature course and with 16 Business students, both groups with proficiency in English of 50% in the reading part of a sample of TOEIC. The participants solved a reading comprehension test in Portuguese and English on the computer through a retrospective written protocol. After that, the metacognitive reading strategies used were classified through an adaptation of the taxonomy of Filho (2002), Joly, Cantalice e Vendramini (2004), Joly, Santos, Marini (2006) and Joly (2007), scholars that investigate the use of reading metacognitive strategies in university and High School levels. Results indicated a considerable standardization in type and frequency of metacognitive reading strategies used in the instruments, which are hypothesis about the text, previous knowledge mobilizing, attention to some reading aspects, memories about the text, text production development, text comprehension evaluation, rereading, related actions to text comprehension and opinion comments on the text. The main difference was in the main access to previous knowledge in both instruments by the Language and Literature group in relation to the Business group. The Language and Literature course students used more metacognitive reading comprehension strategies in relation to the Business ones in both instruments, in Brazilian Portuguese and in English. Moreover, there was a partial occurrence of metacognitive reading strategies transfer in Brazilian Portuguese and in reading comprehension in English and vice-versa. Results may indicate the presence of transfer of metacognitive reading strategies in an unconscious level or the existence of common reading procedures used by speakers of different languages and with different academic background, along with possible cognitive patterns on this activity.

Individual L1 attrition: Permanent or temporary changes in speakers' native language?

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The recent hypothesis that individual L1 attrition affects only the ability to process structures at the interfaces between syntax and other cognitive domains, such as semantics or pragmatics, but not knowledge representations (Sorace, 2011) was tested by investigating the effects of recent re-exposure to L1 input on attrition with an interface phenomenon, antecedent preferences for Spanish pronominal subjects.

Participants included a group of native Spanish speakers who had been living in the UK for a minimum of 5 years and were experiencing L1 attrition ('attriters'), a second group of attriters with the same characteristics of the first one who had been exposed exclusively to Spanish for a minimum of a week right before they were tested ('re-exposed'), and a control group of Spanish monolinguals. Using offline judgements and online eye-tracking measures, participants were presented with anaphora in which number cues matched or mismatched the antecedent preferences predicted by Carminati's (2002) Position of Antecedent Hypothesis (i.e. null pronoun pro: subject preference; overt pronoun: object preference):

Subject match: La madre se despidió de las niñas cuando ella/pro salía por la puerta. (the mother said goodbye[sing.] to the girls when she/pro left[sing.] by the door)

Object match: Las madres se despidieron de la niña cuando ella/pro salía por la puerta. (the mothers said goodbye[plural] to the girl when she/pro left[sing.] by the door)

Based on the offline judgement data, which shows no significant differences between the groups, and on the fact that the monolingual and re-exposed groups are not significantly different from each other in the eye-tracking data, the results indicate that attrition effects decrease as a result of L1 re-exposure, and that bilinguals are sensitive to input changes. Taken together, the findings suggest that attrition affects online sensitivity with interface structures rather than causing a permanent change in speakers' L1 knowledge representations.

The impact of language choice on L1 use and maintenance: The case of Tunisian bilingual speakers

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While a number of studies in bi/multilingualism consider language contact to have detrimental effects on the use and maintenance of the L1, others view the changes in the L1 as an integral part of its developmental process as a dynamic system. Linguistic processes, including acquisition, change and deterioration are largely surrounded and potentially determined by an intricate network of language internal and external influences. The present study investigates the impact of language choice over the use and maintenance of the first language (L1) of Tunisian bilingual speakers in an attempt to determine the extent to which code switching and code mixing are able to account for hybrid linguistic patterns observed in the population, and to establish the influences which form compound factors, resulting from the dynamic nature of language.

For the purpose of this study, an online socio-linguistic questionnaire was used, and data were obtained from 108 Tunisian bilingual speakers about their language choice, their attitudes toward code-mixing/switching, as well as their perceptions on the impact of their language use on their L1. Findings demonstrate that L2 influence mainly results in an overall variation at the lexico-semantic level with limited impact on the grammar. These variations, seen in some cases as aspects of attrition, may also be considered as innovations leading to an enrichment of the bilingual's linguistic competence and an expansion of the conceptual repertoire.

The significance of z-scores in language attrition

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Terminological ambiguity along with aspects related to methodological implications in the study of language attrition is a still open debate among researchers. The present investigation offers an analysis starting from the assumption that language attrition is induced internally, externally or both of them (Schmid, 2011). Thus, an attempt in defining language attrition is made.

In the present project the languages under investigation are German (L1) and Italian (L2). The approach taken in my poster presentation is twofold in its nature. Firstly, the cognitive and executive domains are investigated. Secondly, a quantitative analysis is made on samples of spontaneous speech.

Participants are 16 German-speaking migrants who have lived in an Italian speaking environment for at least ten years. All participants associate the Italian language as their L2. In order to investigate internal induced effects on multilingualism the use of the CERAD battery (The Consortium to Establish a Registry for Alzheimer's Disease, Morris et al. 1988) is implemented. This test battery encompasses several tasks such as fluency tasks (semantic and category), naming task, word list learning, word list recognition. In the CERAD battery the well established Mini Mental State Examination is included which assesses the overall mental status.

External induced effects are given by the quantitative measurement of spontaneous speech. The participants' spontaneous speech sample was analysed with the computer-based tool ASPA (Aachener Spontansprachanalyse, Huber, 2005). ASPA counts and weights linguistic parameters such as word-number, number of content words, TTR of content words.

First results show no evidence of impairment in the cognitive and executive domains in the L1 and L2. Nor do the samples of spontaneous speech indicate a significant level of attrition. Minor differences with the control group may be found in the L1-content-words and in the TTR of L1-content-words.

However, these results must be interpreted carefully since they are based merely on a unit of measurement - the z-score which is the deviation from a mean of a control group (the norm). Thus, the utility of z-scores for language attrition studies will be discussed in the proposed poster.

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A longitudinal investigation into L1 attrition in Steffi Graf

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This research examines the L1 speech of German in Steffi Graf (born 14 June, 1969), who was exposed to English during intensive tennis training as a teenager, and then fully immersed in English when she moved to Las Vegas in 2000. As an official figure, Steffi Graf has been interviewed and recorded in “natural” circumstances, hence without the objective of language testing. It is these archived recordings which were exploited for our longitudinal study examining her L1 speech development. As such, this methodology is very similar to that of Harrington, 2006 who examined the Christmas speeches of Queen Elizabeth II; however, here the focus is on L1 speech development in a bilingual context, with the goal of shedding light on the extent to which bilingual speech systems interact over time.

Twenty-five recordings, each of approximately 2 minutes in length, were analysed. The first recording was made in 1984 when Steffi Graf was 15 years of age, and the last recording was from 2014, when she was 45 years of age. In each recording, phonetic variables were examined, which are said to differ in English and German, in order to see whether transfer occurred from English into her German over time, e.g. whether her German /l/ became “darker”, and whether her German /r/ became more retroflex.

When examining length of residence (LOR) in the context of bilingualism, the prediction is often that a longer LOR is correlated with a higher L2 and a lower L1 proficiency (Piske, MacKay, & Flege, 2001). However, it has been suggested that in the early phases of L2 learning “additional experience in the L2 may well lead to less foreign-accented L2 speech”, but that “for highly experienced subjects, additional years of experience in the L2 appear to be unlikely to lead to a significant decrease in degree of L2 foreign accent (Piske et al., 2001, p. 198). Moreover, non-linear effects of LOR on pronunciation of L2 speech could be related to the suggestion that the first years after migration have the greatest influence on the extent to which an individual undergoes L1 attrition (de Bot & Clyne, 1997). That said, to date no study has verified such claims; and, indeed, this is the aim of the current longitudinal study.

Restructuring of L1 competence in Spanish-French late bilinguals: The case of semantic extensions

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This paper focuses on semantic extensions between Spanish and French i.e., the extension of meaning of a word in one language to a similar word-form in the other. Semantic extensions frequently cause misleading meaning (Jarvis, 2008): e.g., the sense of French ‘entendre’ in the sentence ‘je n’entends pas le train’ (I don’t hear the train) can be unsuitably transferred to Spanish ‘entender’ : ‘no entiendo el tren’ (I don’t understand the train). Semantic extensions arise from L1 to L2 and vice versa. They have the peculiarity of keeping their word-form (no morphological adaptation) and their syntactic structure, making their identification and analysis difficult.

Our main objective was to investigate the effects of semantic extensions in the context of Spanish-French bilingualism on first language performance. Our hypothesis was that cross-linguistic false cognates (e.g., English-French coin/coin) facilitate cross-linguistic word activation and hence semantic extensions. These may be caused not only by lexemic transfer

(of orthographic and phonological forms) but also by lemma level transfer (of semantic and syntactic features).

Two groups of participants (30 Spanish-French late bilinguals in France and 30 Spanish monolinguals in Colombia) were asked to complete an acceptability test of sentences with semantic extensions transferred from French (L2) to Spanish (L1). The bilingual participants additionally rated whether these semantic extensions were present in their environment (attestation test).

The results showed differences between the groups in the judgment of a part of the semantic extensions. Bilinguals were more flexible in their judgment of semantic extensions than monolinguals. This is in line with our hypothesis that the bilingual's competence in L1 can be restructured under the influence of L2. The results also show that false cognates are accepted more easily than different word-forms' semantic extensions suggesting that connections between languages may involve semantic connections in typologically related languages.

Interpersonal variation in late L1 Attrition and its implications for the competence/performance debate

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First language (L1)-attrition, as subject to research on bilingualism (Schmid & Köpke 2007), has been recently related to the interface hypothesis (IH, Sorace & Filiaci 2006, Tsimpli 2007). According to the IH, constructions requiring the integration of syntactic knowledge with knowledge from other domains exhibit optionality in L1-attrition and L2-development. As to the distribution of overt/null subjects (OS/NS) in relation to topic-shift/topic-continuity contexts, L1-Italian near-native L2-English speakers tested on subject use after prolonged exposure to English overgeneralized OS, performing significantly different from monolingual (and similar to L2 speakers, Sorace & Filiaci).

This study investigates the language of a speaker with late (near-native) L2-German (non-pro-drop) L1-Bulgarian (pro-drop) induced attrition with very limited L1 contact for over a decade. Spontaneous speech production data of 2 recordings (250 utterances) was analyzed as to pronominal subject use in the above-mentioned contexts and compared to that of 10 Bulgarian monolinguals without L2 exposure (9 individual recordings of 200 utterances and 4 recordings with a total of 1000 utterances for 1 speaker). OS/NS rates counted per clause were analyzed. The 2 data sets of the attrited speaker differ in language background – L2 target country (TC) vs. home country (HC). While the TC recording OS rate corresponds to the OS patterns reported in the above studies (overall rate significantly higher than the monolinguals' (L1 group vs. AS, figure 1, $p < .05$), the HC recording OS rate falls within the monolingual range (normally distributed), revealing interpersonal variation (which wasn't found for the monolingual with 4 recordings, MS, figure 2). This is unexpected and hasn't been reported so far.

This finding is interpreted as evidence that late L1-attrition is a performance problem (since L1 competence seems unaffected but less accessible/active) influenced by language background in relation to mode (Grosjean 1989, Paradis 2007). If so, an important difference between late L1-attrition and L2-development could be established (in line with neurocognitive results, Felser & Clahsen 2009, Batterink & Neville 2013).

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Attrition at the syntax-discourse interface: The case of heritage speakers of Greek in Chile

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While more commonly spoken languages have featured prominently in heritage speakers and attrition research, still little is known on Greek as a heritage language especially in Latin America (but see Zombolou 2011). This study focuses on Greek as a heritage language in a South American Spanish-speaking country, namely Chile. Empirical interest aside, the aim is to capture linguistic variation in the syntax of subjects of bi-/multi-lingual heritage speakers of Greek in the context of two typologically similar languages, namely Greek and Chilean Spanish. More specifically, the focus here is on two of the properties of the NS parameter cluster (whichever way we define it) in which differences between Greek and Spanish manifest themselves; namely (a) the (over)use of overt pronouns and (b) the use of preverbal and postverbal subjects in neutral and presentationally focused subject contexts (see Lozano 2006).

In null subject (NS) languages, NS are syntactically licensed, but can also be identified pragmatically (e.g. Tsimpli et al 2004). According to the Interface Hypothesis (IH), divergence found in overt/null subject distribution of attriters vis-à-vis monolingual speakers is because of the syntax-discourse interface nature of NS, which, like other interface phenomena, are likely to be acquired late or ‘incompletely’ and are particularly susceptible to attrition (Sorace & Filiaci 2006; Sorace 2011). Overextension of the scope of overt subjects has been shown to obtain even when a NS language comes in contact with another NS language (e.g. Lozano 2006; Sorace & Serratrice 2009; Sorace, Serratrice, Filiaci & Baldo 2009) and has been explained as the use of a ‘default’ unmarked form to mitigate processing cost whenever two languages are involved, regardless of the (total or partial) cross-linguistic overlap (Sorace & Serratrice 2009; Sorace 2011). ‘Variability’ (Tsimpli 2005) or

‘optionality’ (Sorace 2005), i.e. inconsistent linguistic behaviour of adult L2 speakers, has been also addressed with reference to the distinction between interpretable vs. uninterpretable features (Prentza & Tsimpli 2013). The feature of [Focus] in Greek and Spanish, although interpretable at both LF and PF, can become unspecified due to attrition (Sorace 2004); in fact, it has been claimed that in contact situations it is the interpretable features the first ones to become vulnerable before eventually –in some cases at least– being reanalysed as uninterpretable ones (Sitaridou 2014:57).

On this basis, we expect to find (a) optionality as regards the word order SV/VS in neutral and focused subject contexts in the bilingual groups compared to the monolinguals; (b) overextension of overt subjects, both nominal and pronominal, in contexts of subject topic continuity; and (c) loss of NS as topic shift by comparison with the monolingual groups. If these predictions are confirmed, the divergence can be attributed to cross-linguistic differences and/or processing cost due to bilingualism.

98 adult speakers participated in the study, namely: two monolingual groups, one from Athens, Greece and one from Santiago, Chile; as well as: Greek attriters, Greek heritage speakers and learners of L2 Greek in Chile (between November 2015 and February 2016). A detailed sociolinguistic profile was also collected for each speaker as well as a biographical interview. Also, data in narration were collected using two picture story description oral tasks (Hickmann 2003), which are analysed on the basis of the subjects’ category, position, type of predicate, and information structure. Comparisons between the groups yield results concerning the issue of attrition in the aforementioned property of the NS parameter with particular reference to Greek as a heritage language in contact with Spanish.

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Effects of attrition on the acquisition of the classifier structure in Cantonese

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The high proportion of Cantonese speakers among migrants to the United States ensures that it remains widely used in American-Chinese communities in an otherwise English-dominant environment. Children raised in Cantonese-speaking homes grow up acquiring both Cantonese and English. Their Cantonese, for them a heritage language, may exhibit the same divergences from the monolingual norm that are observed in heritage speakers in other countries, for example in Canada or the United Kingdom (Nagy, 2014, Li & Lee, 2001). This study examines the controlled production of classifiers in young heritage speakers of Cantonese in the US.

In Cantonese, classifiers are normally required before a noun that is modified by a numeral. Previous research has found that Cantonese-speaking children in English-dominant countries replaced more specific classifiers with more general ones, but the grammatical structure remained largely intact (Li & Lee, 2001). Data was collected using a picture-naming task that elicited phrases with the numeral + classifier + noun structure. Six classifiers were targeted, with each required for three different objects. 70 heritage speakers in the US, aged 5-11, took part in the study. 62 age-matched monolingual speakers from Hong Kong, where Cantonese is the dominant language, were also tested as controls.

Initial results show that the children in the US were less accurate in their selection of classifiers compared to children in Hong Kong. In cases where an inappropriate classifier was produced, the monolingual children tended to use only the generic *go3*, while heritage speakers used a larger range of classifiers as substitutes. In addition, omission of the classifier and the use of two different classifiers in the same phrase (where only one was required) were observed in the heritage speakers, but not in monolingual speakers.

These results suggest that there was attrition in the classifier structure acquired by the children in the US, resulting in morphosyntactic knowledge that is both qualitatively and quantitatively divergent from their monolingual peers'. Such findings can demonstrate loss of

grammatical knowledge in isolating languages, and have implications for our understanding of first language acquisition and attrition.

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The attrition of French as a foreign language (FFL): The case of Greek learners

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Although acquiring a foreign language represents a very complex cognitive process, that demands great intellectual efforts, it is commonly accepted that the linguistic skills of the learners will inevitably deteriorate and their performance will drastically decrease, once the foreign language is used less often than before or not at all practiced (Schmid & Mehotcheva, 2012).

The present research proposal focuses on studying the attrition of French as a foreign language in Greek students having attended the French Institute of Athens. Based on the Dynamic Model of Multilingualism (Herdina & Jessner, 2002), on the Neurolinguistic Theory of Bilingualism, as well as on the Activation Threshold Hypothesis (Paradis, 1993, 2004, 2008), our principal objective is to investigate not only the governing principles of this phenomenon, but also the different factors which contribute to its development, two aspects which still remain unexplored to a large extent (Köpke & Schmid, 2011).

Our main hypothesis is that learners who have studied French as a foreign language, but who do not practice it any more, will suffer deterioration in their language skills, and that their level will subsequently decrease. Therefore, several questions arise which need to be considered: a) could disuse or lack of practice cause the attrition of French as a foreign language? b) Does contact with the French language during the period of attrition have a positive effect on language retention? c) Are the various language skills (receptive, productive) influenced by attrition to the same degree?

To answer all these questions, we aim to conduct a battery of tests (sociolinguistic questionnaire, picture naming tasks, picture word matching tasks, C-tests) proposed to two different groups of FFL learners (control and attriting group) in order to better comprehend and determine the differences and similarities between them, on both individual and group level.

I am not an immigrant, but I still lose my L1: What is lost?

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The term “language attrition” kindles a curiosity when first heard. Asked whether they have experienced the state of finding themselves “at loss of words” while using one of the languages learnt people tend to look at their own speech with interest and then might admit that they, to some extent, are “attriters”. The term “first language attrition” denotes a steady

decline in the use of one's native language. Researchers have observed that attrition selectively affects the language which demonstrates the fact that certain areas of linguistic knowledge are more susceptible than others.

The title of this paper to an extent is self-explanatory. The present paper, part of the research, wishes to establish the premise and rationale of this distinct research. This research does not fit in any of the categories of L1 attrition outlined in the literature. Though it is about L1 loss in L2 environment, its focus on people who reside in the same environment all through their life, the language environment does not change for these individuals. From the researcher's, (who is an example of such an individual) own experiences, there is hesitation, backtracking and rephrasing of a sentence using another word of L1 or L2. This research, which is in the stage of collecting data using the methods outlined and exemplified in the literature, focuses primarily on finding out about structural disintegration of the L1 or what grammar items are lost and why such items are vulnerable to attrition. The languages involved in this research are also unique: Telugu and Arabic (L1s). This is also a comparative study in terms of finding the items lost. Another aspect would be whether code-switched sites and attrition sites are the same. Hence, this researcher proposes to share these thoughts with the learned world and gain from other perspectives as well.

Ab initio language learning and the summer break

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Many researchers study the growth of students' language skills during their year abroad. In contrast, this paper considers to what extent long periods away from formal teaching, such as the summer break, may be associated with second language attrition. While the summer break offers learners opportunities to work and travel, thus continuing their (language) education in a different context, language skills are likely to diminish without effort being expended to maintain the language. This problem is exacerbated in ab initio language learning, when the proficiency level reached at the end of the first year of instruction may arguably still be too low for some students to withstand substantial attrition. In dynamic conceptualisations of language development, both the potential speed of development of the language system, and the system's resilience to attrition, are thought to depend on learners passing critical proficiency thresholds. Thus, the summer break may constitute a substantial threat to learners' language proficiency.

This paper draws on a longitudinal study of foreign language writing development in a cohort of students of Russian. It compares the learners' written productions at the end of their first year (after 132 contact hours) with those after the summer break along selected CAF dimensions, and relates the findings to measures students took in order to maintain or develop their proficiency level. These measures include travelling to and/or attending a language course in a Russian-speaking area, revising material before the start of the second year, studying to take repeat exams etc., and are in turn influenced by motivational factors as well as practical choices and opportunities. The paper asks how effective the chosen measures were in counteracting language skill attrition over the summer break, relating the findings to a complexity view of second language development.

Cognitive fluency and problem-solving mechanisms in the context of third language attrition

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The poster presents qualitative results of a preliminary stimulated-recall-study on cognitive fluency and problem-solving mechanisms in the context of third language attrition.

The participants (L1 German, L2 English) had learned French as their L3 at school, but they have made nearly no use of it for at least nine years. Following the design of similar stimulated-recall-studies on frequent L2 users' cognitive fluency and problem-solving mechanisms (Dörnyei/Kormos 1998; Kormos 2000; Kahng 2014), the participants completed a speaking task in French. In a second step, they listened to their recorded performance and they were asked to stop the audio file in the context of hesitation phenomena and disfluent speech and to describe what they were thinking while hesitating. In a third step, they listened to their L3 performance once again and the researcher asked further questions to certain phenomena of interest (e.g. disfluent speech or products of cross-linguistic influence).

The participants' comments presented on the poster give insights into their inner speech and thus into attrited or still retrievable declarative L3 knowledge and into competing languages, cross-linguistic influences and problem-solving mechanisms in speech production as aspects of cognitive (dis)fluency in the context of third language attrition. Furthermore, the potential as well as constraints of the presented methodological approach are discussed.

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