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28**

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# ABSTRACTS

**05-08 SEP 18**

## **Eurosla 28**

is organised by the Departments of German and English and the Centre for Multilingualism and Language Acquisition (CEMES), University of Münster.

Book of Abstracts

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# Contents

<b>Local organising committee</b> . . . . .	iv
<b>Scientific committee</b> . . . . .	v
<b>Keynotes</b> . . . . .	1
<b>Roundtable</b> . . . . .	5
<b>Special Lunch Session</b> . . . . .	10
<b>Doctoral Workshops</b> . . . . .	12
<b>Poster presentations</b> . . . . .	37
<b>Colloquia</b> . . . . .	77
<b>Paper presentations</b> . . . . .	91
<b>Index of Authors</b> . . . . .	201

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# Keynotes

## Structure-sensitive constraints in non-native sentence processing

**Claudia Felser (University of Potsdam)**

Examining how and to what extent non-native (L2) speakers can use their linguistic knowledge during real-time processing can provide us with a more comprehensive picture of their L2 mastery than can be obtained from offline or metalinguistic tasks. From a psycholinguistic perspective, L2 processing data can be informative about the real-time status of linguistic constraints and how their relative weighting or timing might vary across populations, thus allowing us to test the robustness of current L1-based processing models or hypotheses.

Here I will look into proficient L2 learners' ability to apply structure-sensitive constraints on the formation of intra-sentential dependencies, focusing on referential and filler-gap dependencies. If a particular constraint is not applied during L2 processing, or is only applied with some delay, this may indicate that

- (i) the constraint has not been acquired,
- (ii) the constraint is a weakly weighted or late-applying constraint, or
- (iii) the structural representation over which the constraint is defined has not been computed accurately or fast enough, or has faded from memory, at the point during processing at which the constraint becomes relevant.

I will provide a selective review of recent L2 processing studies which have all used the same methodology (eye-movement monitoring during reading), similar experimental designs, and L2 learners at comparable proficiency levels. All of these studies focus on learners who were able to demonstrate native-like knowledge of the relevant constraints in offline tasks, and on L1/L2 combinations that should help minimise the possibility of negative L1 influence. Results from these studies show that depending on the type of structure-sensitive constraint under investigation, the constraint may be more likely, equally (un-)likely, or less likely to be violated during L2 than during L1 processing.

Several attempts have been made to attribute differences between L1 and L2 speakers' processing performance to a specific underlying cause, including general processing resource limitations, slower lexical access, difficulties with prediction, reduced sensitivity to grammatical information during processing, or increased susceptibility to memory interference. These hypotheses are often difficult to disentangle empirically, and are also not necessarily mutually exclusive.

I will argue that trying to reduce L1/L2 processing differences to a single cause is misguided. A more realistic and nuanced picture of L2 learners' processing abilities can be obtained by taking into account how sensitivity to linguistic properties of the input interacts with processing mechanisms such as those involved in memory search, prediction, or structure-building, as well as with processing economy constraints.

## **Policy recommendations for language learning: Linguists' contributions between scholarly debates and pseudoscience**

**Raphael Berthele (University of Fribourg)**

Some language acquisition researchers not only pursue their scholarly agenda but also act outside academia as experts in language policy making. The idea of being socio-politically relevant can be seductive, and often our universities or funding agencies explicitly ask us to engage with societal matters. But the relationship between scholarly quality and political impact is complicated: Bad science can inform well-meant (and possibly good) policy just as good science can inform bad policy. Only rarely in our domain do we see examples of policy that is based on robust scholarly evidence, and one of the points of this talk is that this is not only the fault of policy-makers and politicians.

In this contribution, I focus on research findings in language learning that have been taken up in language planning and policy – for example, the notion of linguistic interdependence. Drawing on concrete cases I discuss two problems in the relationship between scientific evidence and policy recommendations: robustness and fit. Robustness refers to the methodological quality of scholarly work: where there are methodological inadequacies in the scholarship this lack of robustness may have led scholars, opinion formers, and policy-makers to problematic or even utterly false conclusions. Fit is the degree to which the theoretical and empirical quality of scholarly investigation is directly related to its usefulness in application: this is often wrongly assumed, and indeed I argue that there are perfectly sound and valid scholarly approaches that nevertheless do not translate directly into policy-relevant applications. A critical review of influential claims in our field with respect to robustness and fit should allow us to determine which theories and research strands may be useful for language policy recommendations and which are probably not. A critical review of linguists' involvement in policy-making suggests that often a more appropriate moniker for so-called evidence-based policy would be policy-based evidence.

In my discussion, I address two delimitation problems: defining the boundary between pseudoscience and real science (in the wide sense of the term, including social sciences and humanities), and defining the boundary between scholarly rigor and political advocacy by academics.

## **The L2 acquisition of children from migrant backgrounds: How age, L1, input and cognitive factors shape this process**

**Johanne Paradis (University of Alberta)**

Commonly-held popular beliefs hold that migrant children in a host society learn a second language (L2) quickly, effortlessly and with uniform outcomes, in contrast to migrant adults. This keynote draws on 10 years of research with over 300 early English L2 learners of various ages and L1 backgrounds to show that these popular beliefs are myths. First, the developmental trajectories of English L2 children demonstrate that it takes years in elementary school for their English abilities to approach that of their monolingual peers, and that some linguistic domains are acquired faster than others, e.g., narrative skills in the L2 reach monolingual levels well in advance of accuracy with verb morphology.

Throughout the elementary school years, children show huge individual variation in their rates of English L2 acquisition for vocabulary, morphology, syntax and narrative skills. Sources of these individual differences include both child-internal and child-external factors, indicating that multiple mechanisms underlie child L2 acquisition. Child-internal factors that influence the rate of L2 acquisition include age of acquisition, L1 typology and cognitive factors like verbal memory and analytical reasoning. Proximal external factors include both quantity and quality of L2 input. Longer exposure to L2 input, un-controversially, predicts better L2 abilities; however, quality factors like the source and richness of this L2 input also play a role in shaping L2 acquisition. Distal external factors, like maternal education levels, are related to quantity and quality of input and, in turn, also predict children's L2 acquisition. Finally, not all early English L2 learners converge with their monolingual peers even by young adulthood for morphosyntax, and some individual difference factors continue to influence L2 abilities at this age. Overall, this research suggests we need to re-consider assumptions about early L2 learners, like quick and effortless acquisition leading to uniform outcomes. The protracted rate of acquisition and the sensitivity of L2 children's developmental trajectories to individual difference factors argue for better and more targeted L2 support in elementary schools.

## Event unit formation under a cross linguistic and acquisitional perspective

**Christiane v. Stutterheim (University of Heidelberg)**

Events are fundamental units in human perception and cognition. The definition of what event units are varies across disciplines. A core criterion is related to the fact of 'quality change over time'. This criterion, however, leaves room for variation across the dimensions of quality as well as time.. In the presentation we will argue for the hypothesis that language is a major factor in event unit formation.

Languages differ with respect to the conceptual categories to which they attribute cognitive prominence on the basis of either grammaticalization or lexical differentiation. A language which requires obligatory marking of phases of an event by aspectual verbal categories, for example, forces its speakers to attend to these differences. A language which differentiates object specific features in the verbal lexicon of position verbs (*sitzen, stehen, liegen*) forces its speakers to attend to features of a visual input which provide the basis for selecting the respective verb. Cognitive processes which are motivated by linguistic structure in this sense are highly automatized, deeply entrenched in the course of first language acquisition.

Earlier cross linguistic studies on event construal and verbal representation of events have shown that speakers of different languages a) segment visual input at different break points into event units and b) select different components of the visual input for verbal representation (v. Stutterheim et al. 2012) So far these two aspects of event construal have not been investigated in their interrelation. Experimental cross linguistic studies in the domain of motion events are taken as evidence for the role of the linguistically packaged conceptual categories in event unit formation. Results will be presented from speakers of four different languages (French, Tunisian, German and English) and learner languages in both verbal and non-verbal tasks. Our hypothesis is supported by three findings: a) the cross linguistic differences found in segmentation patterns converge across the verbal and the non-verbal task. b) The cross linguistic differences in the selection of information representing the scenes correspond to typological differences at the level of grammaticalization and lexicalization patterns. c) Advanced L2 speakers follow principles of their L1 in event unit formation.

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# Roundtable

**“The relation between learner grammar and input”  
sponsored by  
*Language Learning. A Journal of Research in Language Studies***

**Speakers:**

Nick Ellis (University of Michigan)  
Tanja Kupisch (University of Konstanz)  
Tom Rankin (University of Vienna)  
Rebekah Rast (The American University of Paris)  
Jacopo Saturno (University of Bergamo)  
Sarah Schimke (Westfälische Wilhelms-Universität Münster)

**Discussants:**

Susanne Carroll (University of Calgary)  
Daniel Véronique (University of Aix-Marseille)

**Outline:** The topic of the Roundtable is the concrete relation between input and grammatical development in second language acquisition. No current approach to L2 acquisition denies that input is an essential ingredient to language development. It is equally uncontested, however, that the structure of early learner grammar (as evident in comprehension and production) differs from the input in important ways. What needs to be explained is thus the relation between patterns in the input and the acquisition outcome.

On the one hand, there are properties of the input (e.g. frequency and salience of specific elements) that could exert an influence in a bottom-up fashion. On the other hand, the learner disposes of prior knowledge and processing routines that may stem from different sources (e.g. language specific or not; learned or innate), and these may influence input processing in a top-down fashion. Different explanations of the relation of input patterns and acquisition outcome have been proposed, that tend to weigh these two types of factors differently. However, these different explanations typically rely on primitives rooted in their own research tradition. As a consequence, it is difficult to compare the approaches *in relation to the same data*. The aim of the Roundtable is to stimulate a discussion of empirical data across approaches.

The participants have in common that they have conducted empirical studies on the relation between properties of the input and properties of the language acquisition outcome. In order to enhance a focused discussion, each presentation will be briefly commented by one of the other speakers. Two overall discussants will help to identify important points of agreement and disagreement and to facilitate a discussion with the audience.

**Guiding questions:**

1. What relation did you observe between specific patterns in the input and the acquisition outcome?
2. In your view, which aspects of your results are specific to the methods you applied?
3. According to you, which properties of input patterns (for instance, their token or type frequency, their salience, the transparency of form-meaning mappings etc.) can explain the observed relation?
4. According to you, which properties of the learners (for instance, knowledge of their L1, presumably innate knowledge of linguistic structure, language-independent principles of attention and memory, principles of discourse organization, communicative needs, interlanguage-internal pressure etc.) can explain the observed relation?

## Usage-based approaches to L2 input and its intake

**Nick Ellis (University of Michigan)**

Usage-based approaches to language learning hold that we learn constructions (form-function mappings, conventionalized in a speech community) from language usage by means of general cognitive mechanisms (exemplar-based, rational, associative learning). The language system emerges from the conspiracy of these associations. Although frequency of usage drives learning, not all constructions are equally learnable by all learners. Even after years of exposure, adult second language learners focus more in their language processing upon open-class words than on grammatical cues. I present a usage-based analysis of this phenomenon in terms of fundamental principles of associative learning: Low salience, low contingency, and redundancy all lead to form-function mappings being less well learned. Compounding this, adult acquirers show effects of learned attention and blocking as a result of L1-tuned automatized processing of language. I review a series of experimental studies of learned attention and blocking in second language acquisition (L2A). I describe educational interventions targeted upon these phenomena. Form-focused instruction recruits learners' explicit, conscious processing capacities and allows them to notice novel L2 constructions. Once a construction has been represented as a form-function mapping, its use in subsequent implicit processing can update the statistical tallying of its frequency of usage and probabilities of form-function mapping, consolidating it into the system.

## **Initial production of Polish case/gender marking: Input vs. other factors**

**Rebekah Rast (The American University of Paris & CNRS) & Jacopo Saturno (Università di Bergamo)**

Inflectional morphology is notorious for being one of the more challenging areas of foreign language learning. Research on the beginning stages of language learning by untutored learners reveals little to no productive morphology (Klein & Perdue 1992; Starren 2000), and research with tutored learners shows similar results (Bardovi-Harlig 1992; Larsen-Freeman 2010; VanPatten 2004). Although theories provide various explanations for this challenge, the relation between patterns in the input and acquisition outcomes remains unclear.

To investigate this relation, this paper reports on a study (conducted within a larger project) that carefully controlled the learner's linguistic environment from the moment of first exposure to target language Polish (a highly inflected language). The study reports on data collected from Italian native speakers who took part in a 10-day Polish course, a total of 14 hours of oral instruction in Polish (the input), taught by a native speaker of Polish. At the onset of the data collection period, the participants had no knowledge of Polish or other Slavic languages. Two input properties, frequency and transparency (i.e. cognates between Italian and Polish), were carefully controlled and documented in order to compare learner performance with these properties of the input.

An oral production task (question-answer) was designed to test learners' ability to use markers of case and gender in Polish. The task was administered at two time intervals, after 4.5 hours and again after 10.5 hours of Polish instruction. The oral production data were analyzed relative to the two input properties, frequency and transparency. Results shed light on the extent to which learners' exhibit independence from the input or, rather, a significant reliance on the input.

## Language-independent expectations and language-specific knowledge in L2 processing

**Sarah Schimke (Westfälische Wilhelms-Universität Münster)**

When studying the relation between input patterns and acquisition outcome, it can be informative to look at language processing data because these data can provide direct insights into the expectations with which learners approach the input. The current talk focuses on one well-documented of such expectations, the “agent-first-strategy”, according to which language comprehenders, by default, assign the thematic role “agent” to a first-mentioned NP.

In a series of studies, children with German as their L1 or their L2 were confronted with active SVO sentences where the first NP is the agent (I), and with OVS sentences (II) or passive sentences (III) where the agent-first preference needs to be overcome by using language-specific cues (case-marking or verbal morphology).

I. *Der Opa hat am Sonntag die Oma liebevoll geküsst.*

The grandpa (SUBJECT) has on Sunday the grandma (OBJECT) fondly kissed

II. *Den Opa hat am Sonntag die Oma liebevoll geküsst.*

The grandpa (OBJECT) has on Sunday the grandma (SUBJECT) fondly kissed

III. *Der Opa wurde am Sonntag von der Oma liebevoll geküsst.*

The grandpa was on Sunday by the grandma fondly kissed

Using the visual-world-paradigm, it was investigated whether, to which degree, and when in the sentence children use the agent-first strategy, or rely on language-specific cues to overcome this strategy. The results show that younger children and children with German as L2 tend to rely more on the agent-first strategy than older children and monolingual children. Moreover, the difficulties to overcome this strategy were greater for OVS-sentences than for passive sentences.

These results are in line with approaches that conceptualize language acquisition as a gradual change in weight of language-independent default strategies on the one hand and language-specific knowledge on the other hand.

## Does input make a difference? Yes! Substantial? It depends ...

**Tanja Kupisch (University of Konstanz & The Arctic University of Norway) & Tom Rankin (University of Vienna)**

For generative theory, there are three factors which interact in the development of linguistic competence: 1. Genetic endowment of Universal Grammar, 2. General (non-linguistic) principles of computation, and 3. the linguistic experience, i.e. input. While much acquisition research in the generative tradition has been devoted to understanding the properties of Universal Grammar, recent work has increasingly focussed on the contributions of second factors, i.e., experience. In this talk, we discuss second-factor issues, differentiating between macro-properties (richness) and micro-properties (quantification of actual linguistic properties) of input. We provide examples from early bilingual (2L1) language acquisition and adult second language (L2) acquisition, arguing that generative approaches can successfully accommodate differential effects of input frequency. In addition, however, we argue that better input datasets are necessary to formulate a clearer account of input effects, regardless of theoretical persuasion.

Macro-property variables have been relatively well investigated recently, especially in 2L1 acquisition. Variables such as relative proportion of input from different languages, or the number of different speakers who provide input, have been shown to have significant effects on rate and course of bilingual children's acquisition of different morphosyntactic and phonological features (e.g. Cornips & Hulk, 2008; Chondrogianni & Marinis, 2011; Unsworth, 2016, and others), sometimes overriding age of onset effects (Lloyd-Smith et al. 2018). However, micro-properties of the primary linguistic data, i.e. the frequency and realisation of grammatical properties, remain underexplored in bilingual and late L2 acquisition, although models such as Variational Learning (Yang, 2002) and Cue-Based Learning (Lightfoot, 2006; Westergaard, 2009) have highlighted the importance of frequency of expression of parametric properties in L1 development, and in diachronic change. In our contribution, we illustrate based on data from early and late bilingual language acquisition data how acquisition outcomes are predictable if one take a generative stance. More specifically, for L2 speakers we explore the application of variational and cue-based models to resetting the verb second parameter in instructed L1 German-L2 English acquisition. For early bilinguals, we will compare acquisition outcomes across domains, arguing that how these properties are acquired (rule-based vs. item-based) will predict their different degrees of vulnerability in acquisition and in the ultimately attained mature grammars. We further demonstrate that, given reduced-input, such differences are more visible in bilingual contexts. In comparison to monolingual first language development, we discuss additional empirical and conceptual issues faced in quantifying input data in multilingual acquisition and accounting for cross-linguistic influence.

# Special Lunch Session

## Fundamental issues in SLA: Eliciting out-of-the-box ideas

**Jan Hulstijn (Universiteit van Amsterdam), Andrea Révész (University College, London) and Aline Godfroid (Michigan State University)**

According to Sir Karl Popper (1959), one of the main tasks of scientific inquiry is (i) to identify some problems or puzzling phenomena that stand in need of explanation, (ii) to construct an explanatory theory, and (iii) to then test hypotheses derived from the theory. The findings may support or falsify the hypothesis (and the theory) and in so doing, increase our understanding of the problem or the puzzling phenomena; the findings may also change one's view of the phenomena one wanted to explain.

Several scholars in the field of second language acquisition (SLA) have tried to identify puzzling phenomena in need of explanation (Long, 1990, 2007; Spolsky, 1989; Towel & Hawkins, 1994; VanPatten & Williams, 2007, 2015). Hulstijn (2015) proposed to adopt the following general pattern for formulating fundamental issues in SLA: "If such-and-such were facts, how would we explain them?" This pattern gives room for reciprocity between data and theory, allowing theory-building to progress simultaneously with the accumulation of empirical research. A different way of defining SLA as a discipline is to begin at the other end, by proposing a framework consisting of propositions, as The Douglas Fir Group (2016) did, without defining the phenomena that stand in need of explanation.

Much research in applied linguistics and SLA is of the bottom-up kind, exploring hitherto unknown terrain. While bottom-up, empirical research is clearly worthwhile, the backbone of a scientific discipline is formed by at least one fundamental, truly puzzling observation, requiring a theoretical explanation. For several decades, the learnability question or "poverty of the stimulus", as formulated by scholars in the generative school, played this role of backbone in SLA as a discipline. The question arises, however, which fundamental question(s) can now take the backbone position in SLA for those who accept Tomassello's claim (2003, p. 7) "There is no poverty of the stimulus when a structured inventory of constructions is the adult endpoint."

In this project, we aim to (i) draw up a list of fundamental phenomena that are in need of explanation by SLA theories, in particular post-generative theories, and (ii) explore how we might find explanations for them. We will present the findings of a survey that was sent out to all researchers who had their papers accepted for EuroSLA 2018. We also intend to discuss the pros and cons of defining SLA (i) in the if-then-how manner proposed by Hulstijn (2015), inspired by Popper (1959), and (ii) the propositional manner of the transdisciplinary framework of The Douglas Fir Group (2016). The organizers will present a summary of the responses you gave to our survey. After a brief discussion of the results by two discussants (Marianne Gullberg and Christine Dimroth), most of this 50-minute session will be reserved for a general discussion with you, the audience.

# Abstracts

# Doctoral Workshops

## Semantics- and Pragmatics-Syntax Interfaces in the Chinese Ba Construction and Their Representations in English-Speaking Learners' L2 Chinese Grammars

Author(s): Tongkun Liu<sup>1</sup>

<sup>1</sup> *University of Cambridge*

The present study explores the interface (Sorace & Filiaci, 2006) properties of the verb (ba-V) and the retained object (ba-RO) in the Chinese ba construction (Huang et al, 2009), how these interface properties are represented in English-speaking L2 Chinese learners' mental grammars, and how Chinese native speakers and English-speaking learners process these interfaces in real-time. For the ba-V, it always has [manipulate, resultative] semantic properties; and for the ba-RO (Zhang & Tang, 2011), which is not syntactically or thematically essential but of pragmatic importance, i.e. to specify the affectedness on the post-ba NP, it needs to be semantically possible and always forms a "part-whole" relationship with the post-ba NP. This study investigates whether English-speaking L2 Chinese learners have these linguistic knowledge in their grammars and if they are sensitive to these semantics-syntax and pragmatics-syntax interface properties in real-time processing. This study also endeavours to investigate how different/similar English-speaking learners' processing a specific interface is from/to Chinese natives', and whether English-speaking learners show any differences in processing different kinds of interfaces (e.g. internal vs. external interfaces). To answer the research questions above, an online judgement task (Williams et al, 2001), a self-paced reading task and an acceptability judgement task are adopted in this study. All tasks are E-Prime based. Ninety participants took part in the experiment and the data were analysed with R. The results suggest that both native and non-native speakers are more sensitive to the lacking of [resultative] feature than to the [manipulate] feature of the ba-V; L2 learners with lower proficiency level show great optionality on these two features in off-line judgement. L2 learners performed better in on-line processing tasks on the ba-RO than they did in the off-line acceptability judgement task. L2 learners also seem to be reluctant to accept a syntactically unessential RO even if it is semantically possible and pragmatically necessary, and they are sensitive to all the RO in the processing task. Thus, it seems that syntax actually is dominant in L2 processing (cf. Clahsen & Felser, 2006).

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## Individual Differences in L1 Perception & their Effects on Discrimination of Unfamiliar Nonnative Vowel Contrasts

**Author(s):** Vita Kogan<sup>1</sup> ; Joan C. Mora<sup>1</sup>

<sup>1</sup> *University of Barcelona*

Adults are known for struggling with new language sounds. The dominant theoretical perspectives attribute these difficulties to the influence of the native phonological system that functions as a filter and interferes with accurate perception and production of L2 sounds 1. In this study, we examine how individuals with the shared native phonological system differ in perceiving the sounds of their native language (L1) and to what extent these differences influence L2 perception.

We hypothesize that individuals vary in how their native phonemic categories are represented in the perceptual space. Such differences in L1 perception systems might have effects on the perception of unfamiliar sounds (L0). We propose that the perceptual compactness of L1 categories 2 have effects on the perceptual accuracy of L0 contrasts. Listeners with more compact categories perceive L0 sounds more accurately than listeners with less compact categories.

60 Spanish monolinguals varying in acoustic and phonological memory capacity – measured by a target sound recognition task and a serial nonword recognition task, respectively – participate in the study (Figure 1). To assess participants' auditory perception of the novel Russian contrast /i - i/, we use a rated dissimilarity task with goodness-of-fit ratings. To map the perceptual space underlying the native category /i/ in each participant, we use a rated classification task. For this task, we developed a set of stimuli made of 28 synthesized variants of a Spanish vowel /i/. A set of variants that formed four vectors in a psychoacoustic space around the prototype /i/ vowel was obtained by modifying F1, F2, or both at the same time (Figure 2). F1-F2 pairings that were outside the range of the possible human vowel space were excluded. The participants have to rate each variant using a 10-point rating scale. To calculate a perceptual compactness index of the Spanish category /i/ for each individual, we count the number of tokens that were selected as good exemplars of this category (the rating goodness greater than 7) multiple by the their distance from the prototype.

We expect to see the connection between the degree of compactness of the native category /i/ and the L0 discrimination ability.

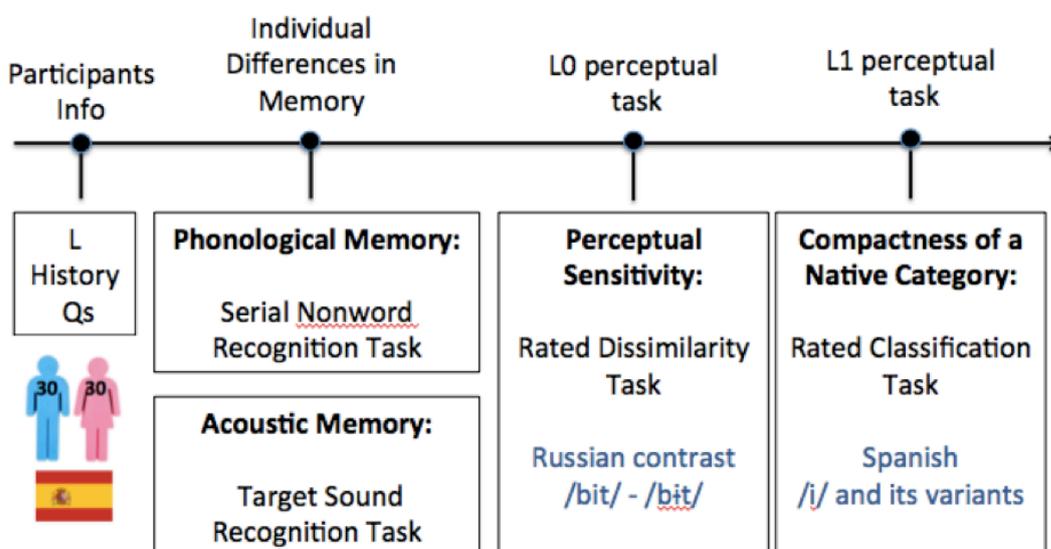


Figure 1: Study design

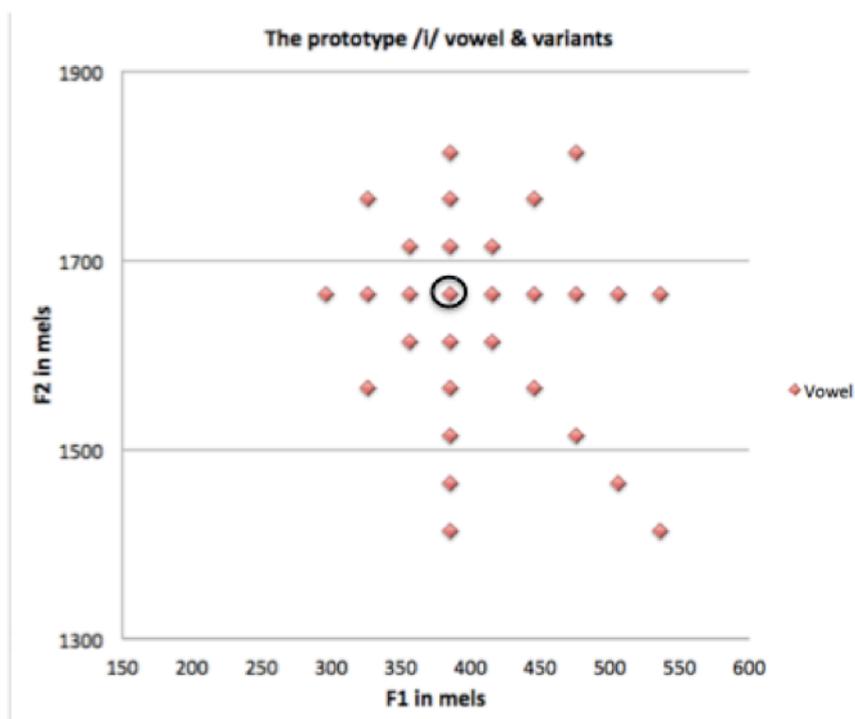


Figure 2: Variants

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## Cross-linguistic influence and cognitive control in young L3 learners

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The present project is a longitudinal study on the as yet little researched relationship between cognitive control, phonological perception, and cross-linguistic influence in children acquiring a third language (L3). Cross-linguistic influence (CLI), the “interplay” between languages acquired earlier or later (Kellerman & Sharwood-Smith, 1986), includes both negative and positive language transfer in all directions. While research on CLI in L3 acquisition has increased over the years, the specifics of phonological acquisition of an L3 is understudied. Furthermore, cognitive control, also subsumed under the term executive function (EF), refers to task monitoring, attentional switching, and inhibiting irrelevant or competing information (Miyake & Friedman, 2012). EF is also argued to be responsible for multilingual language control, and that a multilingual’s increased use of EF for language control boosts its efficacy and carries over to non-linguistic processing (Bialystok, 2017). Lev-Ari and Peperkamp (2012) propose that inhibition performance correlates with phonological processing; however, studies on the topic have yielded mixed results (e.g., Darcy, Mora, & Diadone, 2016). For the project, seventh grade pupils in Germany and Poland, with English as a second language and German or Polish as their respective first and third languages, perform language perception and production tasks in all of their languages, as well as two EF tasks (the Flanker task, an EF test of distractor inhibition, and the Corsi Block-Tapping Task, a test of visuo-spatial working memory). The objective of the PhD project is to expand the field with a longitudinal study investigating to what extent performance on EF tasks correlates with performance on phonological perception tasks, as well as the correlation between EF performance with type, extent, and/or direction of CLI (as determined from production data). Analysis will include the auditory method, the measure of reaction times and accuracies, and group-wise comparisons.

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## Syntactic complexity in learner Finnish

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The concept of complexity and best measures to catch the different dimensions of it have been discussed for more than two decades and a multitude of quantitative measures have been used or suggested over the years (e.g. Wolfe-Quintero, Inagaki & Kim 1998; Bulté & Housen 2012; Pallotti 2015).

In the present study, six quantitative measures based on clauses, sentences and T-units are used to analyse the syntactic complexity of learner Finnish. The measures used are mean length of clause, mean length of sentence, mean length of T-unit, mean number of T-units per sentence, mean number of clauses per T-unit and mean number of dependent clauses per clause which all have been among the most frequently used in the research of L2 complexity (Ortega 2003: 496).

The corpus in the present study consists of pseudo-longitudinal data collected and assessed on CEFR proficiency levels during the Cefling project at the University of Jyväskylä (for the reliability of the assessment see Huhta, Alanen, Tarnanen, Martin & Hirvelä 2014). It consists of formal and informal messages as well as argumentative texts written by two age groups, adult and adolescent language learners, hence making it possible to compare the results in two different learner groups and between different text types.

According to preliminary results, the measures show apparent growth in syntactic complexity between CEFR levels A2 and B1 for the adult learners and between levels A1 and A2 for the adolescent learners. Changes between other adjacent proficiency levels are smaller and do not show linear growth which concurs with some earlier studies and concerns raised about these measures' ability to catch the growth of syntactic complexity (e.g. Bulté & Housen 2012).

The results offer an overall picture of L2 Finnish syntactic complexity across the CEFR proficiency levels and thus add to the empirical evidence of development of syntactic complexity in a language structurally very different from those previously studied using these measures.

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## L2/L3 Acquisition of English determiners, evidence from Cyprus and Jordan

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This cross-sectional study aimed to explore the L2/L3 acquisition of the English article system by L1 speakers of Palestinian/Jordanian-Arabic (PJ/A) and Cypriot-Greek (CG) in the bi(dia)lectal setting of Jordan and Cyprus. It is anticipated that the different varieties used there might influence the acquisition of English determiners. The kind of dialects used in Jordan is a mixture of the Palestinian and Jordanian dialects (Al-Wer, 2008), while in Cyprus, CG and Standard Modern Greek are used (Pavlou, 1992).

The study was conducted in Jordan and Cyprus by implementing a mixed-methods approach with five groups of participants: an English control group, two L2 groups, whose L1s are PJ/A or CG, and two L3 groups, whose L1 is PJ/A but their L2/L3 are English/CG. A sample of 40 adult participants was recruited for each group.

The main significance of this research is that it contributes not only to the field of second language acquisition, but also to the field of third language acquisition (TLA). The originality of the study is that it is focused on syntax-semantics and syntax-discourse interface linguistic phenomena of English determiners.

A set of L2/L3 acquisition hypotheses was tested by providing a thorough analysis of the data obtained from forced-elicitation and grammaticality-judgment tasks. Both tasks were designed to examine the same environments in six (in)definite contexts. These contexts require the use of (a) the definite article before nouns that take the prenominal position of the 'of-phrase' construction and before non-restrictive proper names; (b) the zero article with restrictive proper nouns, and (c) the indefinite article with (non)-referential NPs that mismatch the CG-PJ/A contexts.

The analysis of the elicitation data revealed that there was a statistically significant difference between L2 CG and L3 groups. More specifically, the L2 CG group tend to have positive or facilitative transfer from their L1 to L2 English in the contexts that demand the use of the (in)definite article as CG is typologically closer to English in these contexts. In contrast, L2 PJ participants had negative transfer from L1 into L2 in the contexts that demand the use of the (in)definite article as PJ is typologically distinct from L2 English in the relevant contexts. With regard to L3 groups, the results revealed that (i) their performance in the contexts that demand the use of the zero article was similar to the L2 CG group; and (ii) the accuracy rates of the L2 and L3 groups showed that they followed similar patterns in indefinite contexts.

The results of the L2 groups lend support to the Full Transfer/Full Access Hypothesis (Schwartz and Sprouse, 1996); but only partial support to the Fluctuation Hypothesis (Ionin et al., 2004). Besides, the results of the L3 groups were in line with the Scalpel Model of TLA (Slabakova, 2016) but they do not provide evidence in favour of the Cumulative Enhancement Model (Flynn et al., 2004).

## The Development of L2 Japanese Speech Segmentation Skills Using Bi-modal Input

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Accurately identifying words in speech is a fundamental process for comprehending the overall message. However, studies show that second language (L2) learners often find word identification in continuous speech difficult, even when all individual words are familiar to them (e.g. Goh, 2000). The combination of written and audio input (bi-modal input), like when providing captions in the target language, could help develop speech segmentation skill because it makes the input more intelligible (Charles & Trenkic, 2015). While much research on the effect of bi-modal input on L2 listening has been conducted on English language, none to my knowledge has been done on Japanese learners. The use of bi-modal input of Japanese is an interesting case to investigate because 1) Japanese has a different orthographic system than the English alphabet, 2) Japanese does not have clear visible word boundaries in the form of white spaces positioned between words as in English, and 3) since Japanese is a mora-timed language, speech is phonologically segmented differently in comparison to stressed-timed languages such as English.

The purpose of this study is to investigate to what extent bi-modal input improves the word segmentation ability of L2 learners of Japanese. This study is implemented through a single-case design (SCD), an experimental method that is appropriate for testing the effectiveness of behavior and educational interventions with individual participants. Participants in this study are 12 third-year Japanese learners at a public university in the Midwestern United States, and the study called for the participants to undergo a semester-long pre-post design experiment. Participants watched a series of Japanese documentary with sound and captions (bi-modal input) throughout the semester. Before and after viewing each video, participants took Elicited Imitation Tasks (EIT) as the pre-post-tests, as well as at the beginning and at the end of the semester. This task requires participants to listen to short excerpts taken out of the videos, and to repeat them immediately afterwards. Two Japanese raters counted the number of correctly repeated words/morphemes from each excerpt in the pre-post-tests for each participant, and the results were turned into proportion scores. The result showed that most participants improved their EIT scores throughout the semester, even to utterances from videos and speakers to which they had not been exposed.

This presentation reports the success, confounds, and limitations of this proposed educational tool and explores the future directions of research and the possible role of bi-modal input for L2 Japanese learning.

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## The processing of non-canonical sentences in bilingual and monolingual children and the relation to cognitive control abilities

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Previous studies in different languages have shown that preschool children have difficulties comprehending complex sentences (Aschermann et al., 2004; Knoeferle et al., 2008). Recent studies have linked these difficulties to the children's yet developing cognitive control abilities (Höhle et al., 2016; Mazuka et al., 2009). Furthermore, an increasing number of studies have examined the effect of bilingualism on children's development of cognitive control abilities and found evidence for faster maturation of cognitive control in bilinguals (Bialystok, 2015). However, some studies with null results have been published as evidence for the absence of bilingual influences on cognition (Paap, Johnson, & Sawi, 2016).

This PhD project aims to examine how complex sentences are processed by German monolingual and bilingual children. If there is indeed a cognitive advantage in bilinguals, they are expected to show more advanced processing abilities of complex syntactic structures than their monolingual peers. These hypotheses are tested in two eye-tracking experiments using the visual world paradigm (depicting a mentioned action and a theta-role reversal). Children listen to a sentence while looking at the two images and they should name the correct one. Children also complete memory tasks and receptive vocabulary and grammar tests (PPVT, TROG). Cognitive control is measured with a Flanker task and a Task-Switching paradigm. Parents fill out a language background questionnaire. In the first study, we will investigate the phenomenon of German sentences with word order variation in five-year-old bilinguals and monolinguals. Unambiguous OVS sentences (Den Hund jagt der Vogel, [the dog]acc chases the bird) and temporarily ambiguous OVS sentences (Die Giraffe schubst der Elefant, [the giraffe]nom/acc pushes the elephant) were used. The second NP in the temporarily ambiguous sentence requires children to revise the initial (subject-first) interpretation. Such a reanalysis has been suggested to be easier for individuals with better cognitive control abilities (Trueswell et al., 1999). We predict that temporarily ambiguous sentences are harder to process than unambiguous ones and that cognitive control abilities play a role. In the second study, we will investigate how four-year-old monolinguals and bilinguals interpret different types of active and passive sentences, with the cue to active or passive voice (auxiliaries *hat* or *wurde*) occurring either after the sentence subject (Der Frosch *hat/wurde* täglich das/von dem Eichhörnchen gekitzelt, the frog has/was daily the/by the squirrel tickled) or before (Täglich *hat/wurde* der Frosch das/von dem Eichhörnchen gekitzelt, Daily, has/was the frog the/by the squirrel tickled). The prediction is that an early cue to voice before the subject prevents the default interpretation of first noun as agent of the action and therefore no reanalysis would be necessary. Children should show better performance on these sentences.

## The effect of proficiency level on the relationship between syntactic complexity and accuracy: a study of L1 Finnish learners' written and spoken L2 Swedish

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This study aims to examine how proficiency level affects the relationship between syntactic complexity and accuracy. According to the Trade-Off Theory (Skehan 1998), the relationship is competitive, whereas the Cognition Hypothesis (Robinson 2001) argues for the possibility of taking both aspects into consideration simultaneously. Earlier studies on the relationship between complexity and accuracy have resulted in contradictory findings. One of the controversial aspects is whether proficiency level has an effect on the relationship (see, e.g., Spoelman & Verspoor 2010, Myles 2012).

In the presentation, I answer the following research questions:

1. How does the relationship between syntactic complexity and accuracy differ between two proficiency levels in a) written and b) spoken L2 Swedish?
2. How do the results relate to earlier theories of the interplay of complexity and accuracy?

In this study, syntactic complexity is defined as a structural characteristic of learner language that manifests itself, for instance, in the use of subordinate clauses (see, e.g., Housen, Kuiken & Vedder 2012). The measures used in the study include length-based and ratio measures. The examination of accuracy is limited to word order and the placement of sentence adverbials. The analysis is mainly quantitative. The group level analysis is complemented with analysis on individual level. The data consist of spoken and written samples produced by the same L1 Finnish university students (N=30) at two proficiency levels (CEFR levels A1–A2 and B1–B2).

The preliminary results show that several factors affect the relationship between complexity and accuracy, proficiency level being one of the factors. However, proficiency level seems to have only a minor impact on complexity. The relationship is more evidently competitive in spoken production due to the limited time for planning. These findings add to our understanding of the interplay of different aspects in learner language. In the presentation, I will discuss how the findings contribute to L2 teaching and learning.

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## Anaphora interpretation in Italian before and after L1 re-immersion

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We investigate whether L1 attrition effects on anaphora resolution decrease with L1 re-immersion, by testing 20 Italian-Swedish late bilinguals and 21 Italian monolinguals. According to the “Position of Antecedent Strategy” (Carminati, 2002), Italian speakers prefer a null pronoun in a topic-continuity context (i.e., when there is no change in subject reference) and an overt pronoun in the case of a topic-shift to the object. Swedish, contrary to Italian, does not allow null subjects, which gives rise to ambiguity with respect to the antecedent of the pronoun. In this study, we ask whether Italian native speakers show attrition effects with respect to anaphoric resolution after living for seven years or more in Sweden. Furthermore, we ask whether these speakers display recovery effects after a re-immersion to Italian. In order to test this, the speakers were presented with sentences consisting of a main clause with a subject and object, followed by a subordinate clause with either an overt or a null pronoun. Their task was to assign the pronoun back either to the subject or the object of the main clause. The speakers performed this test once before and once directly after their summer holidays in Italy. The same test was also administered at two different occasions to a control group of Italian native speakers living in their home country. First of all, we expected that attrition effects would reveal themselves most clearly with the overt pronoun sentences for the influence of Swedish. Secondly, in line with the “Activation Threshold Hypothesis” (Paradis, 1993) we expected the group of bilinguals to perform better after re-immersion (Chamorro, Sorace, & Sturt, 2015), suggesting that attrition is due to restricted L1 input and to activation mechanisms rather than to permanent changes in L1 grammatical knowledge. The results suggest that attrition affects not only overt pronouns, as in previous studies, but also null pronouns. After L1 re-immersion, the difference in antecedent assignment between the two groups almost disappeared for the overt pronoun condition. Furthermore, in terms of response times the bilinguals performed more similarly to monolinguals after the re-immersion. Taken together, these findings suggest that, in anaphora resolution, attrition effects are observable both on overt and null pronouns, but these effects are temporary and decrease with L1 re-immersion.

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## Does the use of visuospatial hand gestures facilitate the learning of L2 vowel length contrasts?

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While previous studies have shown the benefits of perceiving or producing gestures to acquire novel L2 phonemic and suprasegmental features (e.g., Gluhareva & Prieto, 2017; Yuan et al., 2018 for beat rhythmic gestures; and Baills et al., 2018 for pitch gestures), some studies have shown null effects for gestures representing vowel length contrasts (e.g., Hirata et al., 2014; Kelly et al., 2017; vs. Klein, 2010). Yet classroom studies have suggested that visuospatial gestures (encoded horizontally in space) representing duration help learning vowel length contrasts (e.g., Klein, 2010). It might well be that durational gestures need to contain intrinsic information about pitch, and in our view this feature needs to be factored in the experimental materials. The goal of this study is to further investigate the role of durational gestures (with and without pitch information) in the acquisition of L2 vowel length contrasts.

In a between-subject experiment with a pretest/posttest design, 50 adult Catalan participants without Japanese knowledge will be trained to discriminate vowel length contrasts and learn a set of ten pairs of accented and unaccented Japanese words only differing in vowel length. They will be randomly assigned to one of the following three audiovisual conditions, namely (a) durational gesture condition (e.g., gestures encoding just durational information); (b) durational + pitch gesture condition (e.g., gestures encoding durational and pitch information); and (c) no-gesture condition. In the posttest, participants will perform a discrimination task and a lexical decision task. Reaction times and accuracy rates will be measured and compared across conditions to assess the effect of durational gestures.

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## The impact of the input in bilingual language acquisition: French-Russian children

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This study investigates the impact of the input in language acquisition of young bilinguals (5-7 y.) from mixed French- and Russian-speaking families living in France. The results of our previous research on fluency in bilingual children's speech productions showed the importance of the input: the French dominated in bilinguals going to French schools and children with more Russian input had a better fluency score in Russian (Tiulkova, 2017). Active and passive lexical knowledge was tested through a picture-naming task (Gagarina et al., 2015) and oral production was elicited by means of an original picture-story retelling task (similar to Mayer, 1969). Moreover, the sociolinguistic profiles of families were also taken into account, so we could compare the data obtained in 2 different configurations: Bilingual First Language Acquisition, and Early Second Language Acquisition (Carroll, 2017 ; De Houwer, 2017). However, only L2 oral fluency measures such as speed, breakdown, repair and composite fluency (De Jong et al., 2013; Skehan, 2003; Tavakoli, 2016) were examined. Thus, the present work focuses on the quality and quantity factors of the input, a speech that children hear (De Houwer, 2009), and involves the analysis of child speech productions in connection with parents' interactions and language questionnaires (Duguine et al., 2014). Furthermore, the simultaneous bilingual language development study requires an access to the longitudinal data (ie, constitution of our future corpus FRUBIC: French-Russian Bilingual Children Corpus).

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## Indirect corrective feedback and languaging in advanced foreign language writing

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Research has shown that corrective feedback has the potential to promote the language learning process (cf. Bitchener & Storch 2016). It is argued that reflection on the feedback received (i.e., *languaging*, e.g., Swain 2006, 2010; Suzuki 2012) would also make a positive contribution to the language learning process. However, there is still little research that explores to what extent and in what way *written* reflection (i.e., *written languaging*), in combination with CF, helps learners to develop their language skills. In the current qualitative study, we therefore explored how 13 advanced learners of Dutch as a foreign language with German L1 benefit from indirect CF (i.e. identifying errors without naming the target form) and written reflection on their errors. The central questions are: Which types of errors made by these advanced learners are the most amenable to indirect CF and languaging? Which error types benefit less from indirect CF and languaging and therefore reappear in later texts? What strategies do learners apply when they reflect on their errors on the basis of indirect CF and then revise their texts? To answer these questions, we triangulated different types of data for our research, namely writing products, revisions, reports of error reflections, stimulated recall interviews and learner reports. Preliminary results indicate that corrections requiring more in-depth reflection and/or the use of complementary strategies (e.g., the consultation of additional resources) seem to lead to more feedback retention.

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## Article use patterns in L1-Brazilian and L1-Russian learners across discourse-pragmatic contexts

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We present a corpus analysis of article use in English L2 by learners with L1 Brazilian and L1 Russian, two typologically distinct languages. We analyse article use and errors in order to identify the most challenging discourse-pragmatic contexts for learners.

Learners from article-less languages may misanalyse 'the' as a specificity marker (Ionin, Ko, & Wexler, 2004) or may omit articles for salient referents (Trenkic & Pongpaioj, 2013), while types of noun phrases (NPs) from Hawkins' taxonomy (1978) also interact with article use (Ionin & Montrul, 2010; Robertson, 2000).

We draw data from EFCAMDAT, a large written learner corpus, which spans across 16 proficiency levels and 128 distinct tasks. The exploratory analysis involves 160 scripts (80 L1 Brazilian – article language, 80 L1 Russian – article-less, A2-B2 CEFR). We manually coded 1874 NPs for obligatory contexts: indefinite (n=473;25%), definite (n=695;37%) or obligatory bare (n=706;38%), the latter being largely overlooked in article error research. The data was coded for: (i) error types: omission (n=189;61% of all errors), oversuppliance (n=69;22%), substitution (n=50;16%); (ii) discourse-pragmatic and semantic uses (e.g. anaphoric, existential, specific/non-specific) combining Hawkins' taxonomy and the notion of specificity (Ionin et al., 2004; Trenkic, 2008).

The overall accuracy rate is 87% for Brazilians and 80% for Russians, but there are differences across conditions. In obligatory bare condition, Russians have a 92% accuracy rate, while Brazilians are at 87%. Crucially, they differ in their errors: Brazilians oversupply 'the' (70% of oversuppliance), while Russians oversupply both articles. All learners struggle with non-specific uses (e.g. *I will find a good job*; 46% of indefinite contexts): Russians' accuracy is at 63% (29% drop below average) and Brazilians are at 76% (11% drop). Russians do best with idiomatic uses, reaching 90% accuracy; e.g. *take a nap, in the morning*.

The analysis shows clear patterns in the distribution of errors across discourse-pragmatic uses, such as high accuracy with rote-learned idiomatic use, but challenges with non-specific uses, potentially due to lack of an identifiable referent.

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## Cross-Linguistic Influence in Early Word Learning

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Studies on Cross-Linguistic Influence often focus on the impact of the speaker's existing language(s) towards the subsequent language(s). The presumption has been that any bidirectional effects would require an advanced fluency in the second language. We should consider the study of loss as an integral part of language acquisition since our mental lexicons are in a constant state of change through learning, forgetting, and consolidation (Sharwood Smith, 1989). Bice and Kroll (2015) found changes in the L1 networks even at the early stages of L2 learning through an emerging cognate effect in beginning learners.

This contribution will be based on a work-in-progress experiment where the participants were taught an artificial language to simulate the effects of limited vocabulary and exposure in early word learning. A portion of the words in the artificial language do not conveniently map onto the participants' native language. The main purpose of the study is to find whether limited, but observable, automatized effects can be observed in the learner's mother tongue at the very early stage of deliberate vocabulary learning in a subsequent language.

The participants were taught form-meaning mappings through a paired-associate learning task. A portion of the form-meaning mappings were of a type where a single form in the artificial language was associated with two meanings in the native language. All presented forms in the artificial language are phonotactically well-formed in Finnish, while the meanings – all representing concrete nouns – were borrowed from the participants' native language (English).

The main dependent measure in the study is the magnitude of the priming effect from the newly acquired associates in the artificial language but measured in the participant's native language. The measures are analyzed in relation to a pre-learning baseline and measured through an immediate post-test after the learning phase as well as a delayed post-test after a single-night consolidation period after the initial testing.

## Is the perception of emotions in a foreign language related to context of acquisition and socialisation ?

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To be able to communicate effectively in a foreign language (LX), it is crucial to have both linguistic and paralinguistic competence. While classroom settings might particularly foster the learning of the former, a natural environment might be crucial to developing paralinguistic/extralinguistic competences, which appear to be crucial in the communication of emotions.

Emotions are encoded and decoded differently in distinct languages and cultures (Gendron et al. 2014). Research suggests that exposure to a particular language and culture affects one's expression and perception of emotions in that language (Dewaele 2010), and that both quantity and quality of exposure matter (Pavlenko 2004). The aim of this study is to investigate whether emotion perception in a LX is linked to the context of acquisition and to the degree and the type of socialisation. Specifically, this study distinguishes between formal and naturalistic LX acquisition, and between LX socialisation with close friends or family, acquaintances, and strangers.

Participants will be Mandarin LX users and a control group of L1 users. They will fill out an online questionnaire and will be presented with 12 short video and/or audio recordings of a Chinese actor. They will have to indicate the perceived valence-and-arousal level of the emotion and will then categorise the perceived emotion. The results will contribute to our understanding of how LX emotion perception develops in the course of second language acquisition and what role socialisation plays in these processes.

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## Dutch and English language development: Comparing bilingual partial education and early-EFL pupils' outcomes

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Research question/background. Previous research has established foreign language learning benefits for pupils in Bilingual Primary Education (BPE) when compared to less intensive foreign language learning programmes. BPE programmes have also shown that there are no long-term drawbacks regarding pupils' first language development (e.g. Baker, 2001). Some studies have also shown advantages in BPE pupils regarding language awareness (Reeder et al., 2013) and early literacy tasks (Serra, 2007). This longitudinal study explores BPE pupils' Dutch and English language development in the Netherlands, comparing them to matched pupils at early English as a Foreign Language (early-EFL) schools.

Method. 154 BPE pupils ( $\pm$  9 hrs. English exposure in school per week) and 83 early-EFL pupils ( $\pm$  1 hr. English exposure in school per week) are tested at age 58, 75 and 92 months using standardised Dutch and English vocabulary tests (PPVT-III-NL, PPVT-IV-EN), phonological awareness tasks (CELF-4-NL), morphological awareness tasks (CELF-4-NL) and syntactic awareness tasks (TvK). Additional non-standardised tests are used to measure phonological memory (Rispens NWR) and morphological compounding (Rispens Compounding). Working memory is tested using an odd-one-out task (AWMA) and non-verbal intelligence is measured using the Wechsler Matrix Reasoning task. Parental questionnaires are used to gain insight into out-of-school exposure, pupil home language and parents' educational background & SES.

Results. Pupils in both groups have been tested twice. Results show significantly higher scores on English vocabulary for the BPE-group at mean age 58 months and 75 months, while Dutch vocabulary is comparable to the early-EFL group across both test times. The BPE-group also showed significantly higher scores on phonological memory at both test times. Scores on phonological, morphological and syntactic awareness were similar for both groups, showing large within-group differences. The BPE- and early-EFL groups did not differ on intelligence and working memory test scores.

Conclusion. This study replicates previous findings regarding first and second language vocabulary development. It is interesting to note a significant difference in phonological memory scores between the BPE and early EFL-groups, as other memory tasks indicate similarity between these groups. Large within-group differences, and the factors affecting these outcomes, will be discussed and presented, following additional analyses.

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## Erwerb von Definitheit durch 4-6 Jährige mit Deutsch als Erst- und Zweitsprache

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<sup>1</sup> Universität Heidelberg

Mit der Verwendung definiter bzw. indefiniter Nominalphrasen signalisiert ein Sprecher im Deutschen, ob der Referent seiner Äußerung identifizierbar ist oder nicht. Die semantisch-pragmatische Kategorie der Definitheit stellt somit ein wichtiges Mittel zum Wissensmanagement zwischen Sprecher und Hörer dar (Ehlich 2003).

Untersuchungen zum Artikelerwerb im Deutschen als Erst- und Zweitsprache konzentrieren sich bislang häufig auf die grammatischen Kategorien Genus, Kasus und Numerus. Auf den Aspekt der Definitheit wird dagegen nur vereinzelt im Rahmen von Studien zur Sprachproduktion eingegangen (vgl. Bittner 1997, Ose & Schulz 2010). Dabei gibt es zum Teil widersprüchliche Annahmen darüber, wie sich die Fähigkeit entwickelt, definite und indefinite Nominalphrasen funktional einzusetzen (etwa zur Referenzeinführung oder zur generischen Referenz auf Objektklassen). Zudem ist für den Erwerb des Deutschen als Zweitsprache bisher nicht untersucht worden, welchen Einfluss das erstsprachliche Wissen der Lerner hat, wenn in der Erstsprache Definitheit nicht durch Artikel, sondern durch andere Mittel wie etwa Wortstellung angezeigt wird.

In dem querschnittlich angelegten Dissertationsprojekt werden die Form-Funktions-Zusammenhänge beim Gebrauch definiter und indefiniter Ausdrücke durch vier- bis sechsjährige Kinder im Deutschen beleuchtet. Inwieweit unterscheiden sich Kinder mit Deutsch als Zweitsprache bei der Verwendung von Artikeln in typischen definiten versus indefiniten Gebrauchskontexten von monolingual aufwachsenden Kindern? Lassen sich für diese beiden Gruppen unterschiedliche Mechanismen erkennen, die den Erwerb steuern? Gibt es darüber hinaus Transfererscheinungen aus der L1, die den Zweitspracherwerb prägen? Die zu erhebenden produktiven Sprachdaten sollen in einem Verfahren gewonnen werden, das einerseits einer natürlichen Kommunikationssituation möglichst nahe kommt (spielerisches Setting, in dem die Kinder über ein Tablet mit einer Spielfigur interagieren), andererseits aber die Sprachproduktion der Kinder mit Blick auf die vorgegebenen, für das Deutsche spezifischen (in-)definiten Gebrauchskontexte kontrolliert eliziert.

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## Lexicogrammatical Complexity in L2 Dutch

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Linguistic complexity has been investigated and measured at various dimensions of language (syntax, morphology, lexicon), but has not, until very recently, been considered at the linguistic interfaces. My PhD research is a response to a recent call to widen the scope of L2 complexity research to the lexis-grammar interface (Paquot 2017; Housen et al, in press), building on Paquot (2017) who looked at the phraseological dimension of language in EFL learner writing. Paquot (2017) operationalized phraseological complexity in terms of diversity and sophistication, adopting measures such as type-token ratios (TTR) and mutual information (MI), and found that measures of phraseological sophistication are better suited to index proficiency than measures of syntactic and lexical complexity, particularly at the B2 to C2 levels of the Common European Framework of Reference (CEFR). To extend the cross-linguistic validity of metrics of phraseological complexity established in Paquot (2017), I explore whether phraseological, and lexicogrammatical complexity, more generally, can also contribute to the description of L2 Dutch performance and development.

The research questions that I aim to answer are:

1. How can we best operationalize and measure complexity at the lexis-grammar interface?
2. How effective are such metrics in indexing L2 Dutch proficiency?
3. To what extent can lexicogrammatical complexity benchmark L2 Dutch development over time?
4. How do measures of lexicogrammatical complexity compare to traditional measures of syntactic and lexical complexity?

Lexicogrammatical complexity will be investigated via an analysis of high-frequency verbs and passive constructions in two corpora of L2 Dutch writing (under compilation), one cross-sectional and one longitudinal, and one native Dutch reference corpus. My investigation of high-frequency verbs and passive constructions evaluates the preferences of certain grammatical constructions for specific lexical items, tapping into complexity at the lexis-grammar interface. This study will therefore expand on the metrics of sophistication used in Paquot (2017), i.e. MI and ratio of academic to total collocations, by assessing various alternatives, including collocation analysis. To answer RQ4, these studies will also be paired with analyses of L2 Dutch writing using syntactic and lexical measures of complexity.

The presentation will focus more particularly on issues relating to how to effectively operationalize complexity at the lexis-grammar interface, and to develop and/or adopt complexity metrics to capture the degree of lexicogrammatical complexity of the texts in the L2 Dutch corpora.

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## Investigating Crosslinguistic Influence in English-Greek Successive Bilinguals: Methodology in Practice

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As the starting age of second language (L2) instruction sees a global decrease (Eurydice, 2012), most children in Greece are introduced to their first L2 (English) at preschool, through one of three available educational programs: submersion (where tuition is in English), immersion (where tuition is in both English and Greek) and Greek programs with integrated L2 lessons. This PhD project investigates the L2 development of Greek children who are enrolled in these programs and asks if (and if so, how) children's first and second language interact during development (following the seminal work of Paradis and Genesee, 1996). Thus, this project targets two linguistic structures: sentential subjects (which differ in English and Greek) and infinitival 'to' clauses (which are similar in the two languages). The question of the first study of my PhD is how preschoolers' production of two different linguistic structures (across two different languages) can be measured, to enable the data to be comparable and sufficient for (statistical) analysis? This is the question that the first study of this PhD seeks to answer. 60 children between 3;6 and 5;6 (30 attending a submersion program and 30 attending a Greek program with integrated L2 lessons) will participate in this within-subjects study, which will take place in May 2018. Children will be tested on standardised tests of receptive vocabulary and grammar, as well as on two tasks: an elicitation task (with structural priming) and a repetition task. In the former, children will look at pictures and listen to a puppet describe them, using sentences that contain the two target structures. Sometimes the puppet will give an incorrect description and children will be asked to correct it - thus having a chance to use the target structures themselves. In the latter task, children will hear and repeat sentences that, once again, contain the two target structures to a (different) puppet. Children's use of sentential subjects and infinitival 'to' clauses in both tasks will be coded and analysed. The number of (in)correct uses of each structure children produce in each task will be compared, while the effect of age, educational programme and proficiency on children's production will be evaluated using regression. Thus, the results of the pilot study will provide evidence in favour of using one (or both) of the tasks for testing crosslinguistic influence in English-Greek successive bilingual children's use of sentential subjects and infinitival 'to'. In this talk, I will present this initial study and its results and discuss the impact and importance of pre-testing methodological choices on this (and other similar) research.

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## Does L3 help or hinder?

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The goal of the current study is to find out if learning a 3rd foreign language (FL) helps or hinders learning the second language (L2). The study was inspired by anecdotal evidence at a Chinese university that students with a 3rd FL were better at English as an L2 than those who only took English.

In this ongoing study 159 Chinese university students are traced longitudinally over one year from September 2017 to October 2018: 46 study English only and 55 study English and Japanese and 58 study English and Russian. Their development is traced from a dynamic perspective, which holds that a number of different factors, such as L1 and aptitude will affect the developmental process. As a dynamic perspective focuses on the actual process of development, frequent samples are needed.

To establish the initial conditions, data was collected on each learner's internal factors such as language aptitude, working memory, language learning motivation and strategies. The instruments used are LLAMA test 2, Operation Span task [3], English Learner Questionnaire [4], and Strategy Inventory for Language Learning [5]. To trace the linguistic development longitudinally in detail, all students hand in bi-weekly writing tasks (12 in total per student) related to their textbook. To trace oral performance a Student Oral Proficiency Assessment (SOPA) interview [6] is carried out three times per academic year. Also, all students are re-tested twice during the year on their internal factors to trace any changes.

Our null hypothesis is that there are no L2 English differences between different groups of learners. Dynamic systems variability analyses will be adopted to see if there are different trajectories for the different types of learners, and inferential statistics will be used to detect group differences and the impact of background factors on the learning process and outcome. In my talk, I will present the setup of the study and discuss the analytic steps to be taken.

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## Studying in a second language: How does the use of English language teaching resources in Norwegian universities affect students?

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This project aims to investigate academic English reading among Norwegian university students. Norwegians have been shown to be among the most proficient L2 English users globally, and most are exposed to English on a daily basis. This makes them an interesting case study for the effects of studying in a second language, compared with university students in other countries with generally lower English proficiency who are also expected to read in English. Previous research has shown that even with their relatively high English proficiency, many Norwegian university students still struggle with reading academic English texts (e.g. Hellekjær, 2009).

This PhD project investigates different aspects of academic reading. The thesis will be divided into 3 separate studies structured around Alderson's (1984) famous question of whether L2 reading is a reading problem or a foreign language problem. The first part of the project compared reading strategies used for reading L1 and L2 texts. Norwegian students, in contrast to other populations in previous studies, reported very few differences in their approach to reading in L1 and L2, suggesting a high level of proficiency, but perhaps also a lack of awareness of how to cope with the challenges of L2 reading. The second and third studies will tap into aspects of L2 proficiency. Study 2 will test English vocabulary knowledge of Norwegian university students in their first year of university relative to those in later years to see whether vocabulary knowledge is correlated with time spent at university: whether extensive reading has been an effective method of vocabulary acquisition, which in turn can be expected to influence reading comprehension. The amount of variation within the groups will also be interesting to determine, and individual differences will be analysed with respect to reported extramural English exposure. Study 3 will measure reading speed and comprehension in the same population. This will be compared with native English speakers in order to investigate whether having to read in a second language constitutes a significant disadvantage compared to being able to read in L1.

I would like to get advice on how to structure the thesis and how to tie the studies together to make a coherent story that fits into existing frameworks and theories. This interdisciplinary project bridges second language acquisition and reading and education research, and I would also like to discuss ways to find a good balance between these fields.

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## ‘A Soulful Company’ or ‘a Fun Hangout’? Strategies to Overcome Conceptual Non-Equivalence

**Author(s):** Elena Dey<sup>1</sup>

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This PhD study investigates conceptual non-equivalence between Russian and English. It is being carried out within the framework of Cook’s ‘Multi-competence’ (2016). The benchmark is Pavlenko’s typology of conceptual processes in the bilingual lexicon (2008:153) and the categorisation of cognitive restructuring in the bilingual mind (Pavlenko 2014:260-263).

I scrutinise 2 untranslatable multi-word units: Russian ‘dushevnaia kompaniia’ and English ‘to lack privacy’. They do not exist in the other language. The study investigates what strategies my participants use to transpose each of these concepts into the language that lacks it and how (or if) their individual differences influence their strategy choice.

The lack of a translation equivalent and a behavioural correlate of ‘privacy’ in Russian has been discussed by Pavlenko (2014). However, the absence of a conceptual equivalent of the noun ‘dushevnost’ and the adjective ‘dushevnyi’ in English is being scrutinised for the first time, to the best of my knowledge. Even though a respective translation equivalent may not exist for these two lexical units, my insight that these 2 concepts may be the intercultural antonyms of each other has been corroborated by the emic data collected from the participants.

My participants consist of 227 multicompetent sequential Russian-English bilinguals, resident in 23 countries. The independent variables include 4 socio-biographical variables, 2 socio-psychological variables, 2 psychological variables and 2 linguistic variables.

The experiment was conducted online via a website created for the study. It included the procedure and the links to all the tasks.

It has transpired that the participants use 3 main strategies to overcome conceptual non-equivalence in the 2 multi-word units: conceptual transfer, conceptual approximation and avoidance. Some participants use a mixture of these strategies, which results in two additional strategies: circumlocution and (or) repetition. Each strategy is further subdivided into sub-strategies. The distribution of the strategies into the categories is different from what we could get by chance. There is also evidence of L1 influence on L2, L2 influence on L1 and coexistence of L1 & L2. The participants demonstrate conceptual fluidity - “conceptual multicompetence”.

I am currently in the process of doing the multivariate analysis of the data to see if there is a relationship between the strategy used and my independent variables. I plan to have it completed by the time I present at the conference.

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## The contribution of processing automaticity to second language listening

**Author(s):** Bronson Hui<sup>1</sup>

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Second language (L2) listening requires rapid, automatic processing of continuing incoming information (Vandergrift & Goh, 2012). However, research into L2 listening has mostly shed light on the role of explicit, declarative linguistic knowledge in listening ability (e.g., Mecarrty, 2000, Wang & Treffers-Daller, 2017), leaving the role of processing automaticity relatively unexplored (cf., Andringa, Olsthoorn, van Beuningen, Schoonen, & Hulstijn, 2012). This study aims to fill this gap by assessing the potential role of automaticity (operationalized as processing speed and stability) in L2 listening.

Forty Chinese learners of English completed a standardized listening comprehension test and three processing tasks in English: (i) an auditory yes/no vocabulary test, and (ii) a sentence verification test and (iii) a sentence construction task adapted from Lim and Godfroid (2015) for the auditory modality. Accuracy in these tasks afforded measures of vocabulary size, syntactic parsing skills, and listening comprehension at the propositional level, respectively. Participants' reaction times (RTs) reflected their processing speed, whereas the Coefficient of Variation (CV) (i.e., SDRT / MRT) provided a measure of participants' lexical and syntactic processing stability, which is one of the hallmarks of automaticity (Segalowitz & Segalowitz, 1993).

Results showed that parsing skills and lexical processing speed were positively related to L2 listening performance, but syntactic processing speed and processing stability were not. These findings replicated previous work highlighting the importance of grammatical knowledge in L2 listening, especially in the case of parsing skills. At the same time, the results were contradictory to Andringa et al. (2012) who found an insignificant role in processing speed, suggesting the need for further investigation. Finally, this study appeared to be the first looking at the potential role of processing stability in L2 listening.

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## Exploring the effect of processing instruction on approaching L2 motion event patterns

Author(s): Amani Al Ghamdi<sup>1</sup>

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Speakers of different languages may vary in their expressions of motion events, a variation captured by Talmy's typology (1985) of the world's languages into satellite-framed language, e.g. English which typically uses Manner verb followed by Path particle, and verb-framed languages, e.g. Arabic which tends to use Path verbs. Moreover, motion event patterns acquired in L1 are assumed to be cognitively deeply ingrained which make them resistant to restructuring in L2 (Slobin, 1996). This difficulty manifests itself clearly when describing L2 motion events involving crossing a boundary: into or out of an enclosure, or over a surface (e.g. Cadierno, 2010). How challenging this area seems for L2 learners, it receives little attention in the context of L2 teaching. The study is an attempt to approach boundary-crossing motion patterns for Arabic-speaking learners of English in classroom setting. Adopting an input-based instruction, Processing Instruction (VanPatten, 2004), the study aims to explore the effects of the intervention on the targeted patterns. 71 Arabic-speaking learners of English were assigned to research and control groups. Three phases of tests were administered: a pre-test, a post-test and a delayed post-test taken place 7 weeks later. Measures included an acceptability judgement and a picture description tasks designed to assess the learners' interpretation and production of the English target pattern (Manner verb + Path satellite). The findings showed a rather complex picture: the treatment had partially succeeded in helping the learners describe the boundary-crossing events in the long term, as reflected in more uses of Manner + Path combinations. However, some other gains were not sustained through the delayed post-test as evident in the production of the non-target pattern (non-Manner verb) and the results in the interpretation tasks. This reveals that overriding L1 conceptual patterns in the domain of motion is not an easy process even after a treatment was provided. The study contributes to the domain of language teaching by proposing some recommendations to approach L2 motion events.

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# Poster presentations

## L2 processing of pronouns in crossover configurations

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A key question about L2 processing is whether it utilizes grammatical knowledge in the same way as L1 processing (Clashen & Felsler 2006; Roberts 2016). We investigate this in the context of “crossover” configurations in English, such as (1), where long-distance wh-movement has crossed a pronoun.

1) Crossover: Which waitress did the busboy say **she** had blamed *ti* for slow service?

2) Noncrossover: Which salesman *ti* said the chairwoman had flattered **him** on talents for sales?

The interpretation of (1) contrasts with the noncrossover configuration (2). In (1), the pronoun must refer to an extrasentential antecedent, whereas in (2), the pronoun can refer to the fronted wh-phrase. This contrast is argued (Chomsky 1981) to be due to the syntactic relationship between the pronoun and the wh-phrase trace. In (1) but not (2) the pronoun c-commands the trace. If L2 English speakers use syntactic structure during online comprehension, then when there is a gender mismatch between the wh-phrase and pronoun, they will demonstrate a gender mismatch effect in the noncrossover configuration (4) but not in the crossover configuration (3), because in the latter, the syntactic structure should rule out a prediction of coreference.

3) Crossover, gender mismatch: Which princess did the queen say **he** had insulted at the reception?

4) Noncrossover, gender mismatch: Which monk said the knight had followed **her** into the old cathedral?

32 Korean and 29 German speakers of English in intermediate and advanced proficiency sub-groups participated in a self-paced reading study, along with 19 native English speakers. The sentence design manipulated the two factors of gender congruency between the wh-phrase and pronoun (match v. mismatch), and extraction position of the wh-phrase (crossover v. noncrossover). Korean, unlike English and German, has no crossover-like restriction on pronoun interpretation. Thus, from an L1 transfer perspective, the German speakers may be expected to exhibit a more robust gender-mismatch effect than the Korean speakers in condition (4).

Descriptively, mean reading times show that the native control and both advanced L2 groups exhibit a distinctive slow-down at or after the pronoun in (4) in contrast to (1–3), while the intermediate groups do not. A repeated-measures ANOVA reveals a three-way interaction between the two factors and group both at the pronoun ( $F_{4,71}=2.65$ ,  $p=.04$ ) and the post-pronoun ( $F_{4,71}=2.84$ ,  $p=.03$ ). Subsequent paired sample t-tests show significant gender mismatch effects for the native control and L2 advanced groups at or after the pronoun ( $p<.05$ ) in the noncrossover condition, but not in the crossover condition. The intermediate groups show no slow-downs in the crossover condition.

Our advanced L2 results suggest that grammatical knowledge comparable to L1 grammatical knowledge is utilized during processing. However, no effect of the L1 grammar on L2 processing was found.

## Learning German as a second language in professional contexts. A conversation analytical study with foreign physicians.

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The relevance of German for specific purposes is increasing – and with it, the need of language acquisition research in this area. The study focusses on German in the medical context, in which hardly any linguistic reflections are yet to be found (see Schön 2014). In this study, two research fields are connected: the field of language acquisition and the field of medical interaction.

The study is based on 12 video recorded pre-anesthesia evaluations (PAEs) by three anesthetists. The encounters lasted a total of 1 h 41 min 26 sec, with an average length of 11 min 25 sec. This is the first study that is based on naturally-occurring interactions between physicians speaking German as a second language, and their patients. Collecting such delicate data was only possible through the fruitful cooperation with the Franziskus Hospital in Bielefeld. The first languages of the participating anesthetists are Rumanian, Arabic (Egypt), and English/Igbo/Italian (Nigerian parents, brought up in Italy). For a German work permit, a language certificate which documents a B2 level of German is required (Common European Reference Framework). At data collection, the three anesthetists had already been working in Germany for three to five years. The medical interactions are the primary data of this study. They were investigated by applying a combination of conversation analysis and error analysis. With reference to workplace studies, secondary data was included (i.e., documents, field notes, questioning of patients, interviews with anesthetists), through which the understanding of the context could be expanded, and the perspective of the interlocutors included.

One of the key findings of the study is this: Although the anesthetists produce a considerable number of unintelligible utterances due to various language errors, both sides claim to be satisfied, and the patients confirm their consent. The roles, and the script of the PAEs help to bridge some communication problems. At the same time, they veil the fact that the main goal of the interaction – namely informed consent – is not achieved. Similar to Foster/Ohta's (2005) findings in a classroom context, the medical interactions include hardly any incidents of negotiating meaning. Language errors are hardly perceived, let alone reflected as soon as they function in their role as anesthetists in Germany. As a result, the anesthetists produce the same unintelligible utterances, including the same language errors in all their PAEs.

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## **Anaphoric expressions in French and Spanish learners of German: Over-explicitness is influenced by proficiency, but not by the L1**

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The use of referring expressions is well-known as a domain where non-native speakers may deviate from native speakers even at advanced levels of proficiency. In particular, several studies have documented a tendency to use over-explicit anaphoric forms, in the sense that learners seem to use less pronominal, in particular less null forms, and more full NP forms than native speakers (for an overview, see Ryan, 2005 ). It is unclear whether these tendencies are influenced by the learners' first language, as many studies have concentrated on learners from one L1 only.

The current study revisits potential influence of the L1 and of learners' proficiency on over-explicitness, using a small-scale but tightly controlled design. We tested Erasmus students after an average of 8 months of residence in Germany. Students differed in their first language (Spanish or French) and in their proficiency (intermediate learners at the B-level of the common European framework, or advanced learners at the C-level). The students as well as a control group of native speakers each retold 16 video clips which were designed to elicit expressions of maintained reference to a protagonist. We analyzed data from 25 participants overall (5 per group), and a total of 1511 anaphoric expressions, with respect to a) the percentage of pronominal compared to full NP expressions in anaphoric contexts and b) from the pronominals used, the percentage of null pronouns, personal pronouns, and demonstratives (d-pronouns). Note that the number of other types of pronouns was negligible in our data. Note furthermore that null pronouns are frequent in spoken German due to its topic-drop property. The type of pronoun used may plausibly be influenced by the L1, as null pronouns occur much more frequently in pro-drop Spanish than in French.

Our results replicate previously observed differences between natives and non-natives, in that natives tended to use more pronominals overall, and used markedly more null forms, than learners. Moreover, the use of null forms was clearly influenced by proficiency (26 % of all pronominals used were null pronouns at the B-level, 42 % at the C-level, and 75 % in the natives). Finally, learners also under-used the demonstrative pronoun "der". There was no evidence of an influence of the L1.

We conclude that learners at intermediate and advanced levels of proficiency have not acquired a native-like use of pronominal forms, even after several months of natural exposure. We further hypothesize that the greater percentage of null forms in the more proficient learners is due to their higher fluency: These learners produced longer chains of coordinated main clauses, which constitutes the predominant context for the use of null forms in spoken German.

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## Digital games and young learners' reading skills in L1 and L2: The role of feedback

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Recent research defines linguistic feedback as information given to language learners to inform them about their performance and progress (Hattie & Timperley, 2007). Given the powerful role that feedback plays in raising achievement, especially among young language learners, researchers have pointed out the need to examine how feedback is designed in digital language games, which are one of the fastest growing language learning tools nowadays.

Hattie & Timperley (2007) describe different levels for the focus of feedback. These range from task-level feedback, intended to support surface-level learning (e.g. "you got five right answers") to process-level feedback, intended to support deeper-level learning related to understanding (e.g. "remember that the same spelling can be pronounced in different ways in English"). As some studies have pointed out (Hattie & Gan, 2011; Shute, 2008), learners benefit from various types of feedback in different ways and at different stages in their learning process.

The present study undertakes a critical examination of the types of feedback available in eight widely-used digital games designed to foster young language learners' reading skills. To this end, a group of ten Spanish seven-year-old children acquiring reading skills in their L1, and a second group of ten Spanish nine-year-old children learning English as a foreign language participated in the study. The students were recorded as they were engaged in a playing session with the researcher using the above-mentioned reading games. After the playing session, the participants were interviewed regarding the games, the type of feedback they had received while playing, and their feeling of learning and achievement. A follow-up session was held with six primary school teachers after that (3 Spanish teachers and 3 EFL teachers). The teachers were shown the recordings of the playing sessions with the students, and they were later interviewed in connection to the students' reading errors and the type of feedback that was provided to them each time. The results from both the students' and the teachers' interviews suggest that, while task-level feedback is important for the youngest group of early readers, alternative forms of feedback which promote learning at a deeper level appear to be essential for older learners who have already acquired reading skills in their L1 and are learning to read in a second or foreign language.

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## **Zur Erschließung konjunktiver Erfahrungsräume neuzugewanderter Jugendlicher und junger Erwachsener im Kontext schulischer Integrationsprozesse auf Basis von Gruppendiskussionen**

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Die Beschulungssituation der neuzugewanderten Schülerinnen und Schüler (SuS) rückt verstärkt in den Fokus der Forschung und wird vor dem Hintergrund verschiedener Aspekte und aus Perspektive unterschiedlicher beteiligter Akteurinnen und Akteure beleuchtet. Es fehlt jedoch bis auf wenige Ausnahmen eine zentrale Perspektive: die der neuzugewanderten SuS selbst. So wird viel über sie, aber kaum mit ihnen gesprochen (vgl. Khakpour 2016: 157f.).

Ein zentrales Anliegen meines Dissertationsvorhabens ist es daher, die betroffenen neuzugewanderten SuS selbst zu Wort kommen zu lassen. Über die Erschließung ihrer geteilten Erfahrungen, ihres „konjunktives Wissens“ im Sinne Dokumentarischer Forschung (vgl. Bohnsack et al. 2013, Przyborski 2004), ist ein originärer Zugang zur Perspektive der neuzugewanderten (Berufs-)SuS auf schulische Integrationsprozesse möglich. Mit der Dokumentarischen Methode wird der Fokus also nicht mehr auf das explizite, kommunikative bzw. theoretische Wissen der neuzugewanderten SuS gelegt, sondern auf das implizite, atheoretische Wissen, welches die Mitglieder eines gemeinsamen Erfahrungsraumes teilen (Bohnsack 2017: 35). Um diesen zu rekonstruieren, wurden Gruppendiskussionen mit SuS bayrischer Berufsschulen durchgeführt.

Das Dissertationsvorhaben ist angesiedelt im BMBF-geförderten Projekt „Formative Prozessevaluation in der Sekundarstufe. Seiteneinsteiger und Sprache im Fach“ (EVA-Sek) (s. <http://www.eva-sek.de/>).

Ziel der Präsentation ist, die Produktivität der Erhebungs- bzw. Evaluationsmethode Gruppendiskussion (im Kontext schulischer Evaluationsforschung) aufzuzeigen, dabei auf zielgruppenspezifische Bedingungen bzw. Merkmale einzugehen und erste Ergebnisse für die Erforschung der Perspektive der neuzugewanderten SuS darzustellen.

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## **Additive scope particles in German L1-French L2 discourse: lexical, syntactic and prosodic development**

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We report preliminary results from a study on the acquisition of additive scope particles by adult German learners of L2 French. Both French and German express additive relations by similar means, such as Ge. *auch* and Fr. *aussi*, which share a basic additive meaning and similar anaphoric properties, but also differ in their syntactic distribution and intonational features. In particular, if the added constituent is the grammatical subject (1), each of them can be inserted in different syntactic positions, but a variation of the pitch accent contributes to identify the particle scope of *auch* (1a), whereas it does not seem to play a role for *aussi*, although an optional pronoun-copy can be used to disambiguate the sentence (cf. 1b).

(1) Context: John speaks English

a. *auch* M<sub>A</sub>ria spricht English / Maria spricht AUCH Englisch

b. Marie *aussi* parle anglais / Marie parle (elle) *aussi* anglais / Marie parle anglais (elle) *aussi*

Cross-linguistic comparisons of native speakers' productions (Dimroth et al. 2010) show that German speakers abundantly use *auch* (realized with a pitch accent) as a device to enhance discourse cohesion, whereas in the same contexts, *aussi* is much less frequent, as French speakers tend to resort to other additive means, and pitch accents are not clearly associated to it.

Although such particles appear very early in L2, previous research has highlighted the difficulty encountered by the L2 learner to acquire the grammar of scope of the target language as well as of native preferences for discourse organization.

Our goal is to examine to what extent adult German learners approach French preferences for additive linking, by looking at: (1) the frequency of additive means in discourse, (2) their syntactic integration in the sentence, and (3) whether the presence of pitch accents (due to an L1 transfer) characterize the German speech in L2 French.

Data come from oral productions of 30 German learners of L2 (15 intermediates and 15 advanced) and 20 French native speakers (control group). Participants performed narrative speech by using a visual stimulus.

Our analysis indicates a clear stepwise development: the proportion of additive means is sensibly higher at the intermediate level, in accordance to their L1, whereas it decreases in the advanced. Similarly, the placement of additive particles by intermediates seem to reflect L1 influence, whereas it becomes very close to the target at the advanced level

An analysis of the realization of pitch accents associated to these particles is in progress. We will discuss the results of the analysis on the acquisition of additive particles in L2 French, and argue whether they are produced with the French canonical intonational patterns (absence of pitch accents).

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## Second language patterns of constructional complexity in the spatial language domain

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Complex, information-dense constructions such as spontaneous/caused motion constructions (e.g., He drove (her) to the hospital) are currently investigated in first (L1), bilingual, and second language (L2) acquisition research, with L2 research mostly focusing on typological bootstrapping and crosslinguistic influences from a Thinking for Speaking (TfS) perspective (e.g., Gullberg 2009; Treffers-Daller & Tidball 2016). Taking up but going beyond established research, this paper takes a usage-based (UB) approach to L2 constructional repertoires, focusing on degrees of information density and patterns of constructional complexity in the spatial language domain.

As for L1 development, constructional complexity in the spatial language domain has been shown to gradually increase through childhood, both at a local complexity level (i.e., constructional repertoire/preferences at the individual conceptual slots for figures, paths, and motion/manner) and a global, combinatorial complexity level (i.e., constructional repertoire, degrees of combinatorial freedom, and complexity at the utterance level; cf. Madlener et al. 2017). Intersecting both with L1 findings and TfS assumptions, this paper investigates (developing) constructional complexity in L2 speech, based on elicited retellings of 20 wordless animated cartoon clips and two wordless picture books by adult (intermediate to advanced) speakers of L2 German (6 L1 English, 6 L1 French), L2 English (6 L1 German, 6 L1 French), and L2 French (6 L1 German, 6 L1 English).

The focus is on the following research questions: (1) What are adult L2 speakers' constructional repertoires, patterns, and preferences in the spatial language domain? (2) Do adult L2 speakers display differences in terms of (i) their constructional repertoires in the spatial language domain [TfS perspective on complex constructions] and/or (ii) constructional complexity at the local and/or global complexity levels [UB perspective on constructional complexity], depending on whether their relevant L1 and L2 lexicalization patterns converge (English-German) or diverge (French-English, French-German)?

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## Representation of Sequential Path of Motion in L2: L1 Influence, Simplification, and Entrenched Patterns

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This experimental study on motion event descriptions will empirically show the sources of interlanguage characteristics of sequential path descriptions based on the production data from L1/L2 English and Japanese, which include L1 Influence, simplification, and entrenched patterns, through contrastive interlanguage analysis (CIA) (Granger, 1996).

Recent L2 studies (Cadierno, 2004) have examined the L2 descriptions of motion events in learners whose L1 differs from their L2 in terms of the typology of motion event descriptions (cf. Talmy's (1991) work), and they have typically focused on the L1 influence as well as simplification in learners' language. However, there still remain some issues. One issue is a phenomenon ascribable to neither of the factors, which was identified in our previous study: non-temporal sequencing of path segments (e.g. *The dog ran into a cage from a soccer goal*) rather than a temporal one (e.g. *The dog ran from a soccer goal to a cage*) found in English as an L2 used by Japanese speakers.

In order to further examine this phenomenon, we analyzed production data from 12 Japanese-speaking learners of English (E-L2(j)) and 10 English-speaking learners of Japanese (J-L2(e)), as well as 15 English and Japanese L1 speakers (E-L1, J-L1), using a different set of video clips depicting more complex sequences of path segments than in our previous study. This experimental method ensured comparability of the data from different language speakers and allowed us a 4-way comparison.

The results show phenomena suggesting L1 influence (choice of verb types) and simplification (simpler path phrases) in both learner languages, but they also revealed the E-L2(j) speakers' frequent use of non-temporal sequencing (50.0%), which was far more common than in E-L1 (4.5%) or J-L1/J-L2(e) speakers (0%), who prefer temporal sequencing. We argue that this is due to learners' own rule preferring the entrenched combination of verb and goal sequence in English. The difference between E-L2(j) and J-L2(e) is explained by the different word orders of the target languages. The role of entrenchment pattern is also discussed through learners' written corpus data by using JEFLL corpus. This study also confirms the effectiveness of CIA in SLA studies.

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## The role of between-language competition in foreign language attrition

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Recent advances in memory research suggest that forgetting is primarily driven by interference and competition from other memories 1. Interestingly, competition dynamics are also at play in the mind of a bi-/multi-lingual: languages compete for selection, and words from non-target languages need to be inhibited to avoid mixing languages 2. A question that thus arises is whether these types of between-language dynamics are possibly at the basis of the forgetting (or attrition) of infrequently used foreign languages (L2). In other words, is retrieval failure in an L2 caused by interference from translation equivalents in other, more recently used languages, like the native language (L1) or other foreign languages (L2+)? In two experiments, we manipulated the presence of L1/L2+ interference and assessed its consequence for L2 vocabulary retention.

In Experiment 1, 45 Dutch native speakers with knowledge of English (B2-C1) and Spanish (A1-B1) first learned 40 new Spanish words. A day later, they performed naming tasks on half of these words in either Dutch or English (manipulated between participants). Finally, memory for all initially learned Spanish items was tested again, both immediately after the Dutch/English interference session, and approximately one week later. Results show that recall was indeed slower and less complete for words that received interference than for words that did not. This effect was still present a week later, suggesting that cross-linguistic interference can indeed have a long-lasting effect on L2 vocabulary memory. More interestingly even, we found interference in English (L2+) to have a much stronger effect on Spanish recall than interference from L1 Dutch.

One potential explanation for the latter finding (stronger effect of L2+ than L1 interference) is frequency: Possibly, the retrieval of a competing memory entry has a stronger effect if it is of low frequency (and therefore, harder to retrieve). We tested this hypothesis in Experiment 2, where participants received interference from Dutch (L1) words varying in frequency. Results confirmed that interference from low frequent Dutch words was much stronger than from highly frequent words, supporting the assumption that competitor frequency moderates the strength of competition.

Overall, findings from these two studies thus suggest that competition from more recently used languages, and especially other foreign, less frequently used languages, is indeed one force behind L2 attrition.

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## Development of shared syntactic representations in second language learning: Evidence from syntactic priming

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Two longitudinal studies investigated the development of syntactic representations in late second language (L2) learners by means of syntactic priming in an artificial language paradigm. Several studies found that L2 learners are primed by syntactic structures of one language, when producing in the other language. These findings suggest that L2 learners develop shared syntactic representations between languages. But how are these shared representations established? Hartsuiker and Bernolet's (2017) theory claims that 1) L2 syntactic representations evolve gradually from item-specific to more abstract, 2) over time these representations are increasingly integrated with available L1 presentations, and 3) both in early and late phases of L2 acquisition, L1 influences syntactic processing in L2.

We tested predictions of this theory in artificial language (AL) learning experiments. The AL consisted of intransitive, transitive, and ditransitive sentences. By doing so, we avoided effects of previous exposure to L2, while obtaining full control of linguistic factors. Native Dutch speakers (with English and French as L2) acquired the AL in the lab by means of a battery of tasks, the last of which was sentence priming. Here, participants first evaluated whether a sentence matched an action (depicted in a movie clip), and then produced a new sentence. The syntactic structure of the artificial language was parallel to Dutch syntax. We manipulated syntactic structure of the prime and meaning overlap between the prime and target verbs, which enabled us to investigate whether syntactic priming occurred in conditions with verb or meaning overlap (item-specific) as well as in conditions without overlap (abstract syntactic priming).

In Study 1, the target was always produced in the AL. On Day 1, there was a large effect of item-specific priming (i.e. in related verb conditions), but a smaller effect of more abstract priming. Moreover, participants tended to use more active and PO dative sentences in L2, which are also more preferred in their L1, demonstrating an L1 influence in early stages of L2 acquisition. On Days 2-5, however, the priming effect became smaller overall and there was a ceiling effect in learning. In Study 2, the artificial language was more difficult (but still largely following Dutch syntax) and target sentences could be either Dutch or the artificial language. Preliminary results are in line with the results of the first study, showing the largest priming effects in the item-specific condition for both languages on the first day. These findings suggest that at least for structures that are very similar between the languages, both item-specific representations and more abstract representations are established very early during language learning.

## Differences between self-noticing and interactional noticing through dictogloss activities

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A number of research results have shown that communicative tasks and noticing through interactions are two vital keys for successful L2 language learning. This study aims to clarify how Japanese learners of English differ in their noticing by themselves and their noticing through interactions with their peers. 68 college students with TOEIC scores of 300 up to 450 engaged in dictogloss tasks 4 times with their peers. Participants were asked to write down their self-assessment and peer-assessment during and after the meta-talk in the task. Comparison of self-awareness and interactional awareness was conducted based on transcriptions of their recorded interactions.

Dictogloss is an adapted type of dictation widely recognised as an effective method that promotes learners to pay attention to forms as well as to grammar while engaging in text reconstruction (Mayo, 2002) and raises learners' awareness of a gap between their own output and target input (Lightbown & Spada 1990; Swain, 1998). Learners listen to the passage, jot down key words and then work together to create a reconstructed version of the original text. Previous studies have mainly focused on the number of Language Related Episodes (LREs) that learners produced during tasks in which they engage in making meaning clearer by discussing language form (meta-talk) and its effect on the understanding of the contents and particular grammar functions as indications of language learning (Swain & Lapkin, 1998; Qin, 2008). Studies focusing on the ways each learner becomes aware of their linguistic problems through meta-talk are lacking compared to studies concerning LREs. The current study focuses on exploring the differences in each learner between their "noticing by themselves" and "noticing after the meta-talk" in order to clarify what factors make it difficult for Japanese learners to notice by themselves and the effect of interactional tasks on foreign language learning.

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## Transferring Concatenative Reading Strategies to a Templatic L2

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This paper investigates whether native concatenative Russian and English speakers of L2 Hebrew compose templatic Hebrew words into composite morphemes as native Hebrew speakers do or whether they treat them as whole words as in their L1.

Background: In languages with concatenative morphologies, words are recognized as whole units with letter position flexibly coded, as evidenced by transposed letter (TL) priming (e.g. jugde priming judge) (Frost et al. 2012). In contrast, in templatic Semitic languages, in which words consist of a root and template (e.g. Hebrew root K.T.V. writing + reflexive verb template H-i-T-R1-a-R2-e-R3, yields HiTKaTeV to correspond), words with root letters transposed do not prime (e.g. HTTKV doesn't prime HTKTV). Furthermore, templatic words can be primed by semantically unrelated words sharing the same root (Frost et al. 1997). These findings suggest that templatic words are decomposed during recognition into roots and templates. The goal of this study is to investigate whether L2 Hebrew readers, whose L1 is a concatenative language, use their L1 reading strategy or whether they have adopted the strategy of their L2. It also looks if there is correlation with Age of Arrival in Israel (AoA) as evidence from previous work suggests that late L2 learners are more likely to retain L1 processing strategies (Clahsen et al 2010).

Methods: 20 native Russian and 3 native English speakers living in Israel participated in a lexical decision task in a masked priming experiment. Participants had wide range of AoA, with about half participants AoA earlier than 12 years old and half greater. Primes were of three types: a) identical (ID)-HTKTV HTKTV, b) TL of two root letters – HTTKV HTKTV and c) unrelated with two letters substituted HTSRV HTKTV (UR).

Results: Unlike native speakers, L2 Hebrew learners exhibited a priming effect for both TL and ID conditions as compared to UR (+126 and +94, respectively;  $p < .05$ ). There was no significant correlation between priming and or AoA ( $R^2 = 0.02641$ ,  $p < 0.46$ ).

Conclusions: The results suggest that unlike native Hebrew speakers, L2 speakers of Hebrew have a whole word representation of templatic words available to them. This is in line with Clahsen's observations that L2 learners are more likely to process complex words as whole units rather than decomposing them like native speakers.

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## **Boundedness based on lexical aspect and L2 countability judgment on English abstract nouns**

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This paper investigates the acquisition of countability of English abstract nouns and its developmental path by comparing two groups of learners at different proficiency levels. Boundedness is a critical notion to characterise the countability of nouns (Jackendoff 1991; Langacker 2008). According to Barner et al. (2008), the boundedness of abstract nouns stems from the boundedness of the verbs that the nouns are derived from, and the inherent temporal boundaries of the event denoted by the verb (i.e., lexical aspect: state, activity, and achievement) are suggested to have an effect on how derived nouns are perceived in terms of boundedness. Following their analyses, Lee Amuzie and Spinner (2013) predicted that non-continuous action nouns (e.g., cut, explosion) were lexically bounded and therefore more likely to be judged as count than lexically unbounded state or continuous action nouns (e.g., love, preparation). However, their prediction was not fully supported in that non-continuous action nouns were less likely to be correctly recognised as count in context when compared with continuous action nouns. They tentatively attributed the unexpected findings to morphological differences in nominal derivation (whether a noun was derived through verb-to-noun conversion or suffixation) or the possibility of their learner's L1 Korean counterpart of nouns to take a plural morpheme.

In this study, a different variety of L1, Japanese, was examined to clarify the influential factor. Lower-intermediate (LI, n=21) and upper-intermediate or advanced learners of English (UI/A, n=25) were given a cloze test in which they supplied either an indefinite *a/an* or null article to the target nouns derived from state, activity, or achievement verbs, through either conversion or suffixation. Results revealed main effects of boundedness and learner proficiency, and an interaction of those two factors with derivation. The tendency found by Lee Amuzie and Spinner (2013) that the action type of nouns were more likely to be count than achievement ones was only true for UI/A learners and with nouns derived through conversion. With suffixed nouns, UI/A learners judged achievement nouns as count more correctly than state and activity nouns, supporting the lexical boundedness account for the countability of abstract nouns. On the other hand, LI learners were more likely to judge activity and achievement nouns as count than state and this tendency was only significant with suffixed nouns. They did not differentiate the three types of semantic boundedness of converted nouns. Implication from the results will further be discussed in terms of the effect of lexical-aspectual properties of abstract nouns and their derivation type in the course of L2 acquisition and possible L1 influence from Japanese.

## Interference in early bilinguals: evidence from agreement attraction

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This study investigates the effects of gender attraction in comprehension by native and heritage speakers (HSs) of Greek. Attraction occurs when agreement errors fleetingly go undetected due to retrieval interference. To date, very few studies have addressed how early bilinguals react to attraction using offline comprehension and production tasks (Scontras et al., 2018: heritage speakers; Veenstra et al., 2017: bilingual children). The present study tests the retrieval abilities of early bilinguals during the online comprehension of gender attraction.

40 Greek NSs in Greece and 40 adult Greek HSs raised and living in Germany were recruited. The group of HSs was exposed from birth to Greek at home (age of onset to German from 0-4 years old) and had attended bilingual schools. To test gender attraction, we manipulated grammaticality (grammatical, ungrammatical) and the gender of the intervener (match, mismatch). The agreement targets were past-participles (Experiment 1) and object-clitics (Experiment 2) and the task was self-paced listening. If attraction occurs, an interaction between grammaticality and intervener is expected.

In Experiment 1, the two groups exhibited different reaction time patterns with respect to the variables tested. The interaction between grammaticality and intervener was reliable for NSs and only for feminine heads. On the other hand, HSs were able to process ungrammaticalities across-the-board. However, the effect was significantly weaker compared to NSs'. Also, HSs reacted to neuter ungrammaticalities on the critical region while NSs only post-critically.

In Experiment 2, the attraction effect was significant in the post-critical segment, although it was not modulated by group or head. Exploratory analysis showed that only feminine heads revealed attraction in NSs in line with Experiment 1, and that HSs did not exhibit any reliable effect.

Overall, the results suggest that both targets can show gender attraction in NSs for feminine heads. The lack of attraction effects for HSs could be related to better retrieval abilities. However, this possibility is low if we take into account that they did not show very strong grammaticality effects in the control conditions either. Thus, HSs seem to employ the same retrieval strategies as NSs on gender attraction in line with the two previous studies on number attraction. The flat RTs of HSs in Experiment 2 suggest that they might experience processing difficulties with gender on clitics.

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## Subject realisation in L2 English: a corpus study of expletive *it* and *there* in three learner groups

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Extensive research has examined transfer of pro-drop to L2 English by speakers of pro-drop L1s. However the empirical picture remains complicated, especially with respect to expletive subjects. L1 Romance-speaking learners produce ungrammatical expletive-*it* associated with post-verbal NPs as in (2) (Lozano & Mendikoetxea 2010; Oshita 2004). However, L1 Greek and Macedonian learners of English are more likely to produce null expletives than null referential subjects (Tsimpli & Roussou 1991; Mitkovska & Bužarovska 2018, respectively). Thus, L2 learners of English with pro-drop L1s seem to both overgenerate and undergenerate expletive subjects. We seek to clarify this issue by systematically investigating the distribution of expletives (*it/there*) in L2 English production. We ask:

- i. To what extent can L2 English learners acquire constraints on the distribution of expletive subjects?
- ii. How does the L1 influence acquisition of these constraints?

Expletives were extracted from the Chinese, German and Spanish components of the International Corpus of Learner English and the Louvain Corpus of Native English Essays (c. 1 million words). We removed non-expletive uses and coded the dataset of 2776 tokens for L1, expletive, complement-and associate-type, and grammaticality.

Expletives occur in target-like raising and impersonal/expletive passive structures, but also ungrammatically with unaccusatives and passives (1-3).

1. *it* can be avoided social problem (L1 Chinese)
2. *it* arose divers social ranks (L1 Spanish)
3. *there* have to be find solutions (L1 German)

Non-target *it*-structures are produced by Chinese and Spanish speakers, and markedly more frequently by Spanish (.11 p/1000w vs .04), while German-speakers favour expletive *there*. Linear mixed effects regressions (Bates et al 2015) show a main effect of L1 ( $\chi^2(2)=12.0$ ,  $p=0.0024$ ), a main effect of complement type ( $\chi^2(1)=94.2$ ,  $p<0.0001$ ), and a significant interaction between L1 and complement type ( $\chi^2(2)=12.9$ ,  $p=0.0016$ ). We consider how English input presents learnability issues to typologically different L1 grammars with respect to distribution of expletives, and how this interacts with universal argument structure properties.

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## Working memory effects in locally and globally ambiguous sentences

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The effects of working memory in the resolution of complex syntax have been established since Just and Carpenter's seminal 1992 study. However, developments in the working memory (WM) model (Baddeley 2003) and in the range of syntactic phenomenon under investigation have shown this to be a productive area of research for both first (L1) and (L2) speakers (Cunnings 2017). One such area is the resolution of ambiguous sentences. Most studies focus on either locally ambiguous (garden path) sentences or attachment preferences in globally ambiguous sentences. In this study, we seek to investigate several different aspects of WM in both locally and globally ambiguous sentences in the same participants, namely L1 and L2 English speakers from different age groups.

Over 150 participants will be tested on five different working memory measures, a self paced reading task and be given a background questionnaire. The WM tests are the Corsi Block test, forwards and backwards auditory digit span tasks, reading span and the Trail Making Test (TMT) parts A & B. These tests allow us to test central executive, phonological loop and visuo-spatial aspects of working memory. The self-paced reading task test includes 10 locally ambiguous items as in (1) matched with 10 control sentences as in (2), 20 globally ambiguous items as in (3) and 10 general fillers. Each sentence was followed with a yes/no question to ensure attention. The locally ambiguous items were adapted from Trueswell et al (1994) and the globally ambiguous sentences from Swets et al (2007).

1. The student accepted by the school was very pleased.
2. The money taken by the student was finally returned.
3. The grandmother of the heiress who bankrupted herself last year still made risky investments.

Data collection is on-going but a preliminary stepwise linear regression with 80 participants showed that WM accounted for 6.9% of the overall variance in the locally ambiguous sentences. However, only the TMT task, a measure of attention and central executive, was a significant predictor of the average times taken to process the locally ambiguous sentences. In terms of high and low attachment preferences there were no significant working memory effects. However, this model did not account for individual background factors (age, L1/L2 status) or the reaction times with the globally ambiguous sentences that will be included in the final results.

## The effect of intercultural personality on L2 motivation changes during study abroad: A longitudinal and mixed-method study

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Whereas the dynamic nature of language learning motivation has been observed in several case studies of language learners during study abroad (e.g., Róg, 2017), factors that influence the changes remain to be discovered. To our knowledge, no research in second language acquisition (SLA) examined the effect of personality on the development of L2 motivation, although the relationships between personality traits and motivation have been widely demonstrated in the field of psychology (see Judge & Ilies, 2002 for a meta-analytic review).

By adopting a longitudinal and mixed-method research design, the current study explored the role of 50 Chinese university students' intercultural personality traits in the development of their L2 English learning motivation during the four-month study abroad in London. Participants' L2 motivation was measured twice at the beginning and the end of the project, via a questionnaire based on Dörnyei's L2 Motivational Self System (Li, 2014). Then, they were interviewed for any over-2-point changes (on a 6-point Likert scale) in their answers to the same questionnaire. Participants' intercultural personality was measured by Multicultural Personality Questionnaire (van der Zee et al., 2013), and they self-reported the L2 use during study abroad via Language Contact Profile (Freed et al., 2004) to control its potential mediating effect (Hernández, 2010).

According to the results, students who scored higher in Open-mindedness were increasingly motivated by Ideal L2 self, while students who scored lower in Cultural empathy were increasingly motivated by Instrumentality (with a prevention focus). Additionally, those who spent more time speaking with non-fluent L2 speakers were increasingly motivated by Integrativeness. Taken together, this study provided a very first longitudinal evidence in the field of SLA that the changes in L2 motivation could be driven by two different underlying factors—i.e., personality traits and L2 use.

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## Categorization of Reading Comprehension Questions for Skimming and Scanning

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Fluent reading, one of successive reading, comprises effective reading speed, automaticity, and comprehension accuracy. To achieve fluent reading, readers do not always need to comprehend every word, but they should change their focus, depending on their reading purpose. The typical skills involved in fluent reading are scanning and skimming skills; scanning skill helps to find specific information, while skimming skill helps to understand the gist of a passage (Grabe & Stoller, 2011; Nation, 2009). Although these reading skills are rarely tested directly in reading tests, examinees are required to use these skills effectively during tests. Previous research has categorized question items in reading tests, but these classifications do not focus on fluent reading skills.

Therefore, the present research attempts to categorize reading test items according to fluent reading skills in Study 1. Based on the results of Study 1, Study 2 identifies the fluent reading skills (i.e., scanning or skimming skills) used by learners to answer the question items using retrospective think-aloud method, which requires participants to describe their thinking after the completion of tasks. The following two research questions will be addressed:

- (1) What level of fluent reading skills is required in each reading test?
- (2) Is learners' use of reading skills consistent with the categorization? If not, does learners' reading proficiency affect their fluency?

In Study 1, two raters will examine reading questions in various reading tests, including those in TOEIC, TOEFL, and the Eiken tests for Japanese students, and then categorize them into four types: scanning, skimming, mix of scanning and skimming skills, and others. Scanning items should explicitly include the answer in passages and one or more search keys in a question sentence or multiple-choice sentences; skimming items should ask for the general gist. The scanning and skimming items will be used in Study 2. Additionally, what each reading test emphasizes regarding fluent reading skills will be identified.

In Study 2, Japanese EFL college students at CEFR A1, A2, and B1 levels will read the categorized reading test items from Study 1. After completing the tests, they will think aloud retrospectively. In this technique, students report what they thought and which words they focused on during the reading tasks. According to think-aloud protocols, examiners will evaluate the use of scanning or skimming skills. Using protocol data, rate of correct answers, and participants' reading proficiency level, the required fluent reading skills for each reading test will be qualitatively analyzed.

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## Young EFL learners' use of discourse markers

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Discourse markers (DMs) have been found to contribute to successful interaction and are essential for fluent and natural speech. In the past few years, there has been an upsurge of research into the use of DMs by non-native speakers (NNS), who have generally been found to use them differently to native speakers (NS). On the other hand, there has been almost no research on children's acquisition of DMs in non-native contexts, and even in native context studies are few and far between (e.g. Choi, 2007; Sprott, 1992). As a notable exception, Romero-Trillo (2002) compared the use of DMs by adults and children, NS and NNS of English, and found surprisingly few differences between the children in the two groups, prompting the conclusion that the differences appear later and are exacerbated by the institutional context of language teaching.

Research in interlanguage pragmatics in general has mostly focused on adult learners (Taguchi, 2011), which is surprising as pragmatic competence is important for learners of all ages. For example, in the Croatian context, the National curriculum for English (2016) requires learners at the age of 10 to be able to plan a conversation, participate in it and use basic turn-taking mechanisms, which can all be facilitated by the use of DMs. Thus, the present small-scale exploratory study aims to offer an insight into the DM use of young L2 learners of English in Croatia. Twelve learners, six aged 10-11 and six 12-13, in their 4th or 6th year of learning English, performed picture-based narrative tasks, in addition to answering simple questions about their everyday lives. Furthermore, the children were given a short questionnaire to assess their attitudes towards the language and their contact with English in the out-of-school context. The recordings of the tasks were then transcribed and analysed quantitatively and qualitatively, revealing the features of the children's DM use in regard to their reported attitudes and exposure to English. The results of the younger and older groups were compared to see whether there are any differences, and the overall results are discussed with respect to current trends in DM research in EFL classroom settings.

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## Intervention effects in L2 representation and processing

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Object relative clauses (ORCs) (see 1) are known to cause greater problems in L1 acquisition than subject relatives (SRCs) (see 2) (e.g. Adani et al. 2010). Friedmann, Belletti and Rizzi (2009) advance a featural Relativized Minimality account, according to which the subject of an ORC acts as an intervenor, making it harder to establish a relationship between the relative pronoun and its source. SRCs, on the other hand, have no intervening DP. The intervention effect is reduced if the relative head and the intervenor differ in features such as number (see 1b).

1. a. I know the musician who **the waiter** touched \_ . (ORC - feature match: singular singular)
- b. I know the musician who **the waiters** touched \_ . (ORC - feature mismatch: singular plural)
2. a. I know the musician who \_ touched the waiter. (SRC)
- b. I know the musician who \_ touched the waiters. (SRC)

Earlier research on L2 relative clause processing has shown an advantage for SRCs over ORCs (e.g. Havik et al. 2009); however, such research has concentrated on ambiguity resolution. Potential featural intervention effects on L2 processing have not previously been investigated. We hypothesize that intervention effects in ORCs will be reduced if the intervenor differs in number from the relative head (compare 1a and 1b).

An experiment was conducted with intermediate (n=21) and advanced (n=37) learners of English (L1 Mandarin), as well as native speaker controls (n=21). Participants took two tasks, a picture identification task to test their interpretation of RCs (reflecting underlying competence) and a moving window task to test reading times (reflecting online processing). Both tasks included 24 sentences manipulating RC type (subject/object) and intervenor type (±singular), plus distractors. Picture identification results show that all groups interpreted RCs appropriately, regardless of RC type, with near ceiling performance. Moving window results show that reading times were longer for ORCs than SRCs for all groups, consistent with intervention effects. Crucially, the intermediates showed significantly faster reading times on the verb when the intervenor differed in number from the head noun (as in 1b). We conclude that processing of ORCs by intermediate proficiency L2ers can be mitigated by mismatched features, parallel to what is reported for L1 acquisition.

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## Clapping hands help children understand and reproduce the rhythm of a new language

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Previous research has shown that short rhythmic training sessions help improve phonological speech processing (e.g., Cason, Astésano, & Schön, 2015) and speech production in young, speech-impaired participants (Cason, Hidalgo, Isoard, Roman, & Schön, 2015). Additionally, there is extensive evidence that rhythmic activities, for example drumming or hand-clapping, help develop pre-reading skills such as phonological awareness (see Tierney & Kraus, 2013, for a review). Yet little is known about whether rhythmic training may also positively affect pronunciation in a second language for young participants (but see Fischler, 2007; Gluhareva & Prieto, 2017; Wang, Mok, & Meng, 2016, for different rhythmic training methods).

The present study investigates the effect of hand-clapping on the pronunciation of newly learnt French words which were semantically transparent to Catalan participants. In contrast to Catalan, French prosody is characterized by a strong lengthening effect on the final stressed syllables of a prosodic phrase. Thirty 7-8 year-old Catalan children participated a short training experiment with a pretest and posttest design. Children were randomly assigned to one of two training groups. While the clapping group repeated words while clapping rhythmically to the syllabic structure of words, the non-clapping group only repeated the words. Participants' oral productions before and after training were perceptually rated for accentedness by three non-specialist French native speakers. Results showed a significant improvement in accentedness ratings for the clapping group. Additionally, an acoustic analysis of the vowel duration of the last accented syllable indicates that only participants that were clapping to the words significantly lengthened the final vowels. Our results show that a short rhythmic training session highlighting the phonological structure of words helps adopt more native-like durational patterns and thus improve the pronunciation in a foreign language.

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## Subject pronoun interpretation in Italian by Croatian-Italian simultaneous bilinguals

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Properties at the discourse-syntax interface have proved problematic in bilingual L1 and L2 acquisition and L1 attrition. This has been shown in particular for the use and interpretation of subject pronouns in null subject languages. Compared to monolinguals, highly proficient bilinguals, especially speakers of a null- and a non-null-subject language, tend to over-accept and overuse infelicitous overt pronouns referring to topical antecedents, while being (mostly) target-like on null pronouns. Two broad explanations have been proposed. The representational account (Tsimpli, Heycock, & Filiaci, 2004) attributes the bilinguals' problems to cross-linguistic influence, while the processing account ascribes the difficulties primarily to bilinguals' hypothesised less-than-optimal processing abilities (Sorace & Filiaci 2006). According to the representational account, difficulties should not arise when two grammatical systems pattern together with respect to an interface property; according to the processing account, difficulties should occur even then.

To test the predictions of the two accounts, we conducted a study into the interpretation of Italian subject pronouns in intra-sentential contexts by Croatian-Italian simultaneous bilinguals (N=40) and a control group of Italian monolinguals (N=48), aged 11-15. The two languages involved pattern together with regard to the antecedent biases of null and overt subject pronouns. Participants read sentences containing null and overt pronouns, which either followed or preceded the candidate antecedents (anaphora vs. cataphora), and matched each sentence to one of three pictures, showing the antecedent as the matrix subject, the matrix object or an extra-linguistic referent. The task is an adaptation of task used by Tsimpli et al. (2004) and Sorace and Filiaci (2006), the results of which, based on off-line measures, have provided the basis for the two accounts.

The bilinguals expressed the same antecedent preferences as the monolinguals in all conditions apart from cataphora with overt pronouns, where they chose the topical, subject antecedent less often than the monolinguals, i.e. in 24.1% compared to 37.5% of the cases. In other words, it was the monolinguals, rather than the bilinguals, who accepted more overt pronouns referring to discourse topics. However, the difference did not reach statistical significance in a logistic regression analysis. We compare the results with previous findings in the L2 acquisition domain and interpret them as pointing to cross-linguistic influence, and thus lending support to the representational account.

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## Investigating the relationship between aptitude and working memory in younger and older bilinguals.

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Language learning aptitude has featured intermittently in the spotlight since Henmon's work in the 1930s. Recent research claims that working memory (WM) and aptitude may be interchangeable constructs (Wen & Skehan, 2011; Miyake and Friedman, 1998). This theory follows evidence that working memory plays a key role in the language learning process (Wen, 2015). However, several factors influence individual differences in WM such as age and bilingualism. Age-related declines in cognitive performance have been extensively researched, and WM changes have been suggested as one of the main cause of said declines. However, bilingualism may enhance some WM functions (Bialystok et al, 2004) or even improve later life cognition (Bak et al, 2014). Yet very little research has explored the effect older age and bilingualism might have on language learning aptitude.

The present study comprises two research questions:

1. What is the relationship between aptitude and WM?
2. What are the effects of bilingualism and aging on WM and aptitude?

For RQ1, we tested 127 participants and for RQ2, 56 matched participants on age, gender and bilingual status. The younger groups were aged 18-25 and the older groups were 50+. Participants completed all four parts of Meara's (2005) LLAMA aptitude tests and three WM tests: Trail Making Tests parts A & B, an auditory digit-span backwards test and a visual spatial test.

The results of a Principle Components Analysis for RQ1 showed initially provided two components with WM loading on a different component to the aptitude tests. When four components were manually derived, WM and aptitude still did not load on the same components.

For RQ2, Mann Whitney U tests show significant differences and medium effect sizes with bilinguals outperforming monolinguals for 3/4 aptitude tests but not for WM. In terms of age, the younger groups significantly outperformed the older groups on WM but not aptitude with medium-high effect sizes. Comparing both factors (age and bilinguals), the data was recoded into 4 groups (young monolingual; young bilingual; older monolingual; older bilingual). The older bilinguals significantly outperformed the older monolinguals in 3/4 aptitude tests whereas there was no difference between younger monolinguals and bilinguals on any aptitude test. For working memory, the only significant differences were on the TMT part A measure of attention. Here, the older monolinguals performed significantly worse than the two younger groups but there was no difference between the older bilinguals and any other group.

The overall findings suggest three general conclusions. Firstly, that working memory is not interchangeable with aptitude. Secondly, and that bilingualism affects aptitude but regardless of age and thirdly, that bilingualism mitigates some of the effects of aging in some measures of attention.

## Implicit learning and productive skills: effects of training procedure

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In SLA, developing implicit knowledge is often seen as necessary for attaining fluency, and there is evidence that implicit training, but not explicit, can result in native-like neural responses to L2 grammatical violations. However, little is known of the effect of implicit training on productive skills, particularly when subjects remain unaware of the rule learned. We used a cued recall paradigm to investigate the implicit acquisition of a novel rule and its use in production, as well as the effects of different kinds of cognitive load on learning outcomes.

We ran two experiments in which participants were exposed to a novel rule based on Czech spatial prepositions *v* and *na*, which both mean “in, at” but alternate chiefly according to the type of place described by the noun (open vs. bounded space). Subjects were exposed aurally to English sentences in which spatial prepositions were replaced by one of four pseudowords, accompanied by a visual stimulus (a character drawing either next to a picture or superimposed onto it). For each possible character position, only two out of the four prepositions could be used (overt rule); participants were encouraged to discover this association. There was also a hidden rule: in one position the preposition used depended on the type of place pictured, following the Czech rule (System items); in the other it was picked at random from the appropriate pair (Random items). Training consisted of a short-term recall task in which pictures and auditory descriptions were presented in sets of two, followed by oral recall cued by each picture. Testing involved longer-term cued recall of training items as well as elicited production with novel items (disguised as recall items). Awareness of the hidden rule was assessed by post-test questionnaire.

In Exp1, only Aware participants were significantly better at recalling System items than Random ones; however, both groups had above chance accuracy in producing the correct preposition for novel System items, suggesting that even participants who were unaware of the rule had acquired it implicitly and could use it productively. In Exp2, we altered the training procedure by inserting questions probing knowledge of the overt rule between presentation and cued recall of each item. It led to better performance on the overt rule, but worse performance on the hidden rule for both groups, with only aware participants still above chance. This suggests that subjects did not develop implicit knowledge of the hidden rule, and the aware ones performed above chance just by relying on explicit knowledge. We conclude that implicit training can result in knowledge that subjects can use productively even without awareness, but the task is crucial: cued recall with enough memory load can lead to implicit rule learning, while cognitive load from an explicit secondary task can disrupt the process.

## Examining English L2 lexical knowledge with words and nonwords

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In this study, high frequency English words were used to generate nonwords of varying degrees of wordlikeness, indexed by statistical properties including neighborhood and bigram frequency. These were then randomized with English words of varying lengths, and formatted into a paper test that was administered to several hundred students of English as a second language at a Japanese university. Participants were asked to use a 7-point scale to rate their confidence that each item was an English word or non-word. While providing a non-timed yes/no measure of participant discrimination between words and non-words, this 10-15 minute test also elicited a qualitative self-report of the degree of confidence in a participant's decision process, therefore offering a finer-grained insight into individual differences in students who perform at a similar level of English proficiency. The opportunity to analyze non-word responses in this format further offers insight into L2 learner awareness of English orthotactic patterns. This quick and easy paper test provided a statistically robust tool for assessing lexical knowledge as a reflection of L2 proficiency. Statistical analysis and findings are discussed.

## Investigating lexical frequency profiles from vocabulary and speaking tasks

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This paper presents a novel investigation of the relationships between second language (L2) oral ability, vocabulary knowledge, and the extent to which these relate according to various validated descriptors. Motivation stems from three recent research strands, showing that: (i) vocabulary knowledge varies according to linguistic proficiency; (ii) vocabulary knowledge development appears under researched; and, (iii) vocabulary knowledge is multi-faceted, to the extent that different tasks appear to elicit different vocabulary knowledge.

The current paper aggregates the vocabulary knowledge and oral ability of 35 first language Japanese learners of (L2) English. Our subjects took 3 speaking tasks (DeJong et al, 2012), and two vocabulary tests (Lex30; Meara and Fitzpatrick, 2000; NVLT McLean et al., 2015). We then evaluated our speaking tasks according to two recent papers that measure fluency and vocabulary knowledge (DeJong et al, 2012; Uchihara and Saito, 2016). Our evaluation includes both subjective and objective measures, and includes the lexical frequency profiling of vocabulary produced in the speaking tasks. Following two papers, (Fitzpatrick and Clenton, 2017; Walters, 2012) we present the multifaceted nature of our subjects' vocabulary knowledge and report 'a lexical frequency profile of the lower frequency words, rather than a single score' (Walters, 2012, p184) for each task. We report several significant correlations; our data indicate that lexical knowledge relates to objective indices of sophistication, articulation rate, and subjective indices of functional adequacy, comprehensibility, and accentedness.

The findings from this novel approach detail the vocabulary knowledge necessary for learners to perform well in different speaking tasks. We present these findings in terms of second language speaking development, lexical development, and implications for pedagogy and practice.

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## The conceptualization of the passive voice in L2-Dutch and L2-Spanish of French speaking students

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French speaking students encounter difficulties when expressing the passive voice in L2-Dutch and L2-Spanish. Even though these languages all have a periphrastic passive (auxiliary + past participle), their form and function vary. Whereas the French passive has only one auxiliary, namely *être* 'be' (Gaatone 1998), Dutch has two auxiliaries, *worden* 'become', and *zijn* 'be' (Cornelis & Verhagen 1995). The Spanish passive can be constructed with *ser* 'be' or *estar* 'be', but the most frequent defocusing strategy is the reflexive *se*-passive (Tolchinsky & Rosado 2005). In foreign language teaching, the focus seems to be merely on the formal characteristics of the passive voice, neglecting notions as animacy, agentivity, and patienthood. However, these notions are relevant for academic texts (Biber 1988), a genre that academic language students have to master. We investigated how the passive is used by advanced level foreign language learners in academic writing.

In a corpus (approx. 45.000 words) of Master Theses in Dutch/Spanish literature by French-speaking students (level: C1), we analyzed formal and functional characteristics of the periphrastic passives. Formal issues are: auxiliary selection, range of main verbs, and semantic role configuration. Functional issues are the argumentative development of the macrostructure of the text.

Our results show a frequent and in general correct use of the periphrastic passives. In contrast to lower proficiency levels, we did not find the expected overuse of the *zijn* or *ser*-passive (as a formal counterpart of the L1-structure). The found errors at this C1-level are rather due to difficulties in apprehending the specific semantic role configurations; errors that are also found in native speakers. Moreover, the students conceptualize certain steps of their argumentation more often than others with passive voice constructions, which results in a native-like use of passives. In conclusion, our results show that the passive voice in argumentative structures seems to be well acquired at this level. However, the weight given to formal characteristics in language teaching might be reconsidered in favor of more attention to the use of passives for argumentative purposes (Hinkel 2002).

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## ProSeg: A comparable corpus of spoken L2 French

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We present the PRO-SEG corpus, a corpus of spoken L2 French, which has been created to study the acquisition of phonology and prosody in French as a foreign language. The data collection was designed primarily to study the acquisition of segmental and suprasegmental phenomena comparing potential effects of L1-transfer, but it can also be used for other purposes.

### Data and Participants

So far, a total of 65 participants have been recorded. These include 14 native (L1) speakers of French who grew up monolingually, and 51 learners of L2 French (L1 Italian, L1 German and L1 Swedish). The L1 French speakers were recorded at the University Paris 3 (mean age 26, SD = 5). The L1 Italian group consists of 25 participants (mean age 25.2, SD = 3.7) recorded at the University of Turin and included learners at the B1-C1 levels. The German group consists of 21 participants (mean age 24.6 yrs, SD = 6.5) recorded at the University of Constance (levels B1-C2). The Swedish group currently consists of 5 students (mean age 25 yrs, SD = 5) recorded at Lund University (levels B2-C1). All learners were recorded in L2 French as well in their L1 (Italian, German and Swedish) for the same tasks.

### Data collection protocol and tasks

All participants were asked to fill out a questionnaire about their linguistic biography. Besides self-reported proficiency, we assessed the learners' general proficiency in L2 French by means of the vocabulary component of Dialang (Huhta et al. 2002). The production data was gathered first in L2 French, then in the learners' L1. The tasks consisted for each language of: (1) a reading-aloud task of 9 short texts (933 words for the French version of the corpus), specifically conceived to study prosodic patterns and pseudo-gemination (see below); (2) a picture description task; (3) a monologue in which the learners were asked to describe a holiday, a book, and/or a film of their choice. We adopted the *Agile* approach for designing the collection protocol, as for the COREIL corpus (cf. Voormann & Gut 2008 and Delais-Roussarie & Yoo 2011). To our mind, having a protocol using tasks offers several advantages, such as the possibility to add or modify tasks to get more data, or to adapt them according to the age and proficiency level of the speakers.

### Studies in progress

The corpus has been designed to study pseudo-gemination and prosodic phrasing in L2 French. A pilot study on the realisation of pseudo-geminates by Italian learners has already been carried out, revealing effects of L1 orthographic rules on the realization of such segments (Authors, submitted). An experiment on foreign accent rating is in the process of being carried out. The data available can be used to study other phenomena, including and going beyond phonetic and phonological properties. Comparable data of semi-spontaneous speech production (i.e. the description task) is available for each speaker in his/her L1 and L2 and can be used to study cross-linguistic influence.

## Long-Term Effects of Early Exposure to English as a Foreign Language on Syntactic and Lexical Development in L2 Oral Production

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Although foreign language (FL) education programs have been implemented in primary schools worldwide, recent findings suggest that early onset of FL learning is not a strong predictor of second language (L2) performance. Many studies, however, discuss issues related to early FL learning based on receptive L2 proficiency test results (e.g., Jaekel et al., 2017). Further, most studies on L2 oral production assess it by using complexity, accuracy, and fluency (CAF) as dependent variables (e.g., Pfenninger & Singleton, 2016). Since the early stage of FL speech tends to rely on formulaic utterances, which may not require grammatical processing, the effects of the age of onset (AO) of FL learning on L2 development has been equivocal. Therefore, the present study investigates the long-term effects of limited early exposure to English as a foreign language (EFL) on L2 development in communicative contexts, focusing on syntactic and lexical development.

The study included 48 Japanese EFL students, aged 10–15. In accordance with the AO of FL exposure, two cohorts were distinguished: early-onset learners, who began at 8 years (Grade 3) or earlier (AO: M = 6;11), and late-onset learners, who began at 9 years (Grade 4) or later (AO: M = 9;9). Each cohort comprised 24 students (four each from Grades 4–9) with few opportunities to use the L2 outside classrooms. To assess their L2 oral proficiency, quasi-spontaneous speech production was elicited by five face-to-face communicative tasks (e.g., creative skits). Regarding the dependent variables, syntactic complexity was measured by the mean length of utterances in words and processability was examined by the developmental stages of productive structures in Processability Theory (Pienemann, 2005). Lexical complexity was measured by lexical verb types and the Guiraud Index. To include the factor of individual cognitive abilities, the Stroop Test (ST) and Digit Span Test (DST) were also conducted. To observe the effects of AO and the school year at the time of data collection, a mixed-effects model (using R lme4) was applied with ST and DST scores' random intercepts.

The analysis showed that both AO and school year were significant on syntactic complexity and processability, whereas only school year affected lexical richness. The results indicate that limited early exposure to EFL does not have long-term effects on lexical development; however, it affects syntactic development, at least until EFL learning in secondary schools.

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## **Expectations and experiences: Student and teacher views on English language speech contests in Japan**

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English language speech contests are popular in Japanese junior and senior high schools, bringing prestige to winning students' schools and aiding winners to gain admission to university (Nishikawa-Van Eester, 2009). As a result, students and teachers devote a great deal of effort practicing for these high-stake contests. However, there has been very little research examining what motivates students, especially pre-university ones, to join speech contests or how students feel about their experience of participating. In this study, 25 high school and 73 junior high school speech contest participants completed anonymous surveys (including both Likert-type quantitative questions and qualitative open response questions) examining two factors. The first is why do students join speech contests (e.g. to win a prize), and the second is what was their overall experience of the contest itself (e.g. was it stressful?). In addition, 36 teachers of speech contest participants were asked why they felt their students joined the contests and how their students' experiences were in order to look for any differences between teacher impressions and the actual reported experiences of the students. The results of the two surveys showed that both students and teachers felt the most important reason for students joining speech contests was a desire for personal growth, followed by self-expression, improving English communication skills, making social connections, and winning a prize. The fact that winning a prize was considered the least important reason to participate indicates that students are primarily intrinsically rather than extrinsically motivated. Regarding the second research question, the overall experience of participating in a speech contest was positive for students, with the majority enjoying the contest and wishing to repeat the experience. In addition, students reported feeling more confident in their public speaking as a result of participation, as well as having made improvements in their English communication abilities. The most surprising result is that students do not consider the experience to be stressful, although outside observers such as teachers may feel the opposite. The surveys also revealed that students spent an average of 20.3 (SD= 20.1) hours practicing a single speech and teachers devoted an average of 16.5 (SD=15.8) hours to coaching them outside of class. Overall, we can conclude that speech contests are a generally positive experience with many benefits for students who participate, thus justifying the heavy time commitment involved for both students and teachers.

## Japanese L2-English readers' and listeners' mapping processing of thematic roles to syntactic functions during on-line sentence comprehension: A psycholinguistic study

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To understand a sentence correctly, comprehenders need to utilize various information such as syntactic and semantic information, and then to link thematic roles such as agent and patient to syntactic functions such as subject and direct object. Also, L1 and L2 readers use animacy information, one of the semantic information, during sentence comprehension (Traxler et al, 2002). However, unlike L1 readers whose syntactic processing is automatic, Clahsen and Felser (2006) report that L2 learners' syntactic representations computed during sentence comprehension are shallower, less detailed and non-automatic. Narumi and Yokokawa (2012) investigated Japanese L2-English learners' use of semantic and syntactic information, in specific, animacy and morphosyntactic information with an eye-tracking study. They revealed that Japanese L2-English learners' use of morphosyntactic information is non-automatic even though their use of animacy information increases in proportion to their proficiency.

However, relatively little is known how well Japanese L2-English learners link thematic roles to syntactic functions by utilizing animacy and morphosyntactic information. In addition, it is not clear how input modality affects Japanese L2-English learners' syntax-meaning mapping because the stimuli in those studies were visually presented, not auditorily.

This study employed a sentence-picture verification task to examine how well Japanese EFL learners conduct syntax-semantic mapping while reading or listening to a sentence. We also examined the effects of proficiency on their mapping.

Forty-eight Japanese EFL learners, divided into two groups according to their proficiencies (intermediate or low-intermediate), participated in both auditory and visual experiments, in a counter-balanced manner. Four types of stimuli with the manipulation of passive/active constructions and animacy for two nouns were prepared as follows, (a) the girl was pushing the boy, (b) the boy was pushed by the girl, (c) the boy was pushing the table, and (d) the table was pushed by the boy. After listening to or reading a sentence, participants performed correctness judgments by matching pictures. The accuracy rates and response latency were compared.

Overall findings are (1) low-intermediate participants answered passive sentences with two animate nouns less accurately and slower than other sentences, suggesting that their use of morphosyntactic information is nonautomatic, but animacy information, almost automatic, (2) low-intermediate participants were poorer at listening than reading, reflecting some phonological information stored in their mental lexicon is inaccurate and that they are inexperienced in retrieving phonological information. In the presentation, these findings will be further discussed in terms of L2 learners' development of awareness toward morphosyntactic information. Also, implications and suggestions for foreign language instructors will be provided.

## Phonological Bootstrapping in the early L2 English Acquisition of German 4th graders

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It has been suggested that learners can use their phonological knowledge in areas such as word recognition to support vocabulary acquisition. This phenomenon has been referred to as “phonological bootstrapping” (e.g. Christophe, Guasti, & Nespors 1997). The present study shows that young learners not only use this knowledge comprehensively but that it can function as a productive resource and compensate for limitations in lexical acquisition.

We ask the following research questions: (1) Do early EFL learners make use of their phonological knowledge when encountering lexical gaps in the acquisition of L2 English? (2) Which productive strategies do they use to fill these gaps?

184 4th graders (mean age 123 months; 102 male, 82 female) from 6 public primary schools in Germany took part in the experiment. They were put in a communicative situation (storytelling) in order to elicit lexical gaps and activate strategies to fill them (‘baby bird story’, Gagarina et al. 2012). They had received about four years of formal instruction in English, meaning their lexical knowledge was still comparatively small. However, learners’ phonological understanding of English had already developed due to prior exposure through media outside the school context (e.g. movies, music). The picture stories were audio recorded, transcribed and searched for instances of lexical gaps. In addition, we collected data to control for lexicon size and general narrative skills in English and German.

Results show that the learners make use of their knowledge about English phonology in order to cover lexical gaps. When missing an English word, they relied on lexical transfer from the respective German equivalent and adapted it to the English sound system. Many pupils made use of similar strategies, the most common being: fronting (sibilant fronting, e.g.  $f > s$ : /ʃ/wanz>/s/wanz, vowel fronting, e.g.  $a > \text{æ}$  f/a/ng>f/æ/ng), vowel lengthening/diphthongization (e.g.  $fl/i/gt > fl/ai/gt$ ), deletion of final sounds (e.g.  $Trepp/\text{ə}/ > Trepp$ ), and voicing (e.g. alveolar stops  $t > d$ :  $Fu/t/er > Fu/d/er$ ).

At that stage of L2 acquisition phonological proficiency seems to be ahead of lexical proficiency with the learners even demonstrating knowledge about English speech characteristics on different levels (phoneme inventory, phonotactic rules). Hence, despite limited formal input, EFL learners demonstrate an understanding about what English is supposed to sound like and make use of a productive and creative type of “phonological bootstrapping” to assist them in lexical acquisition which leads to higher discourse fluency.

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## Italian as heritage language in the Italian Levantine community of Istanbul: Evidence from postverbal subjects

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The study reports the results of an experiment targeting the production and interpretation of postverbal subjects in Italian by multilingual heritage speakers of Italian whose dominant language is Turkish. All participants belong to the ancient Italian Levantine community of Istanbul, whose members have always maintained a multilingual linguistic repertoire that include Italian, French and Greek, as well as Turkish.

The theoretical background of the study is the Interface Hypothesis (Sorace-Filiaci 2006). It is argued that syntax-discourse interfaces are vulnerable in the acquisition of heritage languages due to both cross-linguistic influence and cognitive factors related to bilingualism itself (Sorace-Serratrice 2009).

The aim of the study was to assess the role of these two factors in the heritage speakers' grammars compared to those of a native Italian monolingual control group. Data collected from real time, computer-assisted production (sentence building) and comprehension (acceptability judgement) tests illustrate an internal distinction in the experimental group depending on the role of Turkish as language of primary and secondary education. More specifically, subjects of the experimental group who had not attended eight consecutive years of education in Turkish differ from their monolingual counterpart only in postverbal subjects production [ $W(18) = 55.5$ ,  $Z = -3.535$ ,  $p = .001$ ], whereas those who had continuously attended Turkish schools from the age of 6 to the age of 14 show areas of vulnerability both in production [ $Z2 = 57.9$ ,  $p = .001$ ] and comprehension [ $Z2 = 11.27$ ,  $p = .010$ ] of the same interface.

The proposal is put forward that for the former the source of non-target behaviour is instability in their linguistic performance that emerges only in linguistic production due to its higher cognitive burden; in the latter, instead, the massive and prolonged exposition to a Turkish input in critical years may have affected their linguistic representation, thus emerging both in production and interpretation of postverbal subjects. Effects of cross-linguistic influence, then, appears to emerge only under particular conditions related to the speaker's educational development and life choices.

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## **The Importance of Pragmatic Conventions Compared to Grammatical Rules in German-Dutch Business Encounters**

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This paper reports on the effect of pragmatic failures and grammatical errors in German as a second language, more specifically, in German letters written by Dutch students of German business communication. To investigate whether teachers of German in the Netherlands are right to pay more attention to grammatical rules than to pragmatic conventions, we asked 98 German business professionals to rate the pragmatic failures and grammatical errors in 16 letters on a 7-point Likert scale. The results show that pragmatic failures are significantly more bothersome than grammatical errors. This outcome suggests that L2 German language writing courses should develop more awareness of the pragmatic force in intercultural communication and focus more on teaching German pragmatic conventions.

Based on studies on the effect of language errors made by non-native writers (Roberts & Cimasko, 2008), the attitude from Germans to the Dutch (Van Oudenhoven, Selenko, & Otten, 2010) and the Language Expectancy Theory (Burgoon & Siegel, 2004) we expected that knowledge of the fact the author was Dutch and affinity with the Dutch would lead to a more tolerant attitude towards the pragmatic failures and grammatical errors. For that reason, we studied whether their judgements were affected by knowledge of the writer's nationality, degree of affinity with the Dutch, or degree of contact with the Dutch. These aspects did, however, not affect readers' judgements.

## Das Fliegen vs. fliegen: How is Verb-Noun Conversion Represented in L1 vs. L2 German Mental Lexicon

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Conversion or zero-derivation or is a phenomenon that has led to controversial linguistic debates/discussions (cf. Approaches to Conversion/ Zero-Derivation, Bauer & Valera, 2005), but that has been only very rarely explored from a neurolinguistic or psycholinguistic perspective. To our knowledge there is only one study (Stolterfoht, Gese, & Maienborn, 2010) that addresses the mental representation of conversion (adjectives vs. participles) in German.

In two priming experiments, we investigated mental representation of morphologically homonymous forms in German. Prime and target were phrases that were presented in two steps. In the first step (S1) of a prime, the subject of a VP or an NP determiner was presented, in the second step (S2) the homonymous verb/noun form was presented in capitals. Target S1 was always the personal pronoun “wir” (we) and S2 was always the corresponding conjugated verb form, e.g. FLIEGEN (fly). In the identical condition, the S2 prime was a conjugated form in 1. person plural (like target). In the inflected condition, S2 prime was in 3. person plural. In the infinitive condition, S2 prime was in infinitive, in the conversion condition the S2 prime was a deverbal noun. In the unrelated condition, S2 prime was another verb in 1. person plural. Participants performed a lexical decision task on the S2 target verb form, which was identical in all conditions. The conditions of each of the 24 critical items rotated between participants over 6 lists according to the Latin square design, so that each participant made a lexical decision over just one target S2 form of each item. 92% of all items in the experiment were fillers.

Conditions (Target always: wir[S1] FLIEGEN[S2])

Primes:

Identical: wir[S1] FLIEGEN[S2]

Inflected: sie[S1] FLIEGEN[S2]

Infinitive: wir wollen[S1] FLIEGEN[S2]

Conversion: das[S1] FLIEGEN[S2]

Unrelated: wir[S1] BAUEN[S2]

L1 German natives were tested in Experiment 1 and L2 German learners at B2-C1 level with L1 Czech were tested in Experiment 2. Results were the same in both experiments indicating that L1 natives and L2 learners represent and process the forms in the same way. Participants were fastest in the identical and inflected conditions which did not differ from each other and slowest in the unrelated condition. The conversion and the infinitive conditions clustered together and differed statistically from both the identical and inflected condition and from the unrelated condition.

The findings will be discussed in the context of four existing hypotheses about lexical access and representation of converted forms: 1) separated lexical entries (Don, 2004; Plank, 2010) 2) joint entry with two word-class specific subentries (Bauer & Valera, 2005), 3) storage of word-class neutral stems (Marantz, 1997; Smolka, Zwitserlood, & Rösler, 2007), 4) conversion as a productive process (Barner & Bale, 2005; Stolterfoht et al., 2010).

## Relative Clauses in Heritage Chinese: Explanation by the Relativized Minimality Approach

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This study examines heritage Chinese speakers' production of relative clauses (RC) in Chinese. In Chinese, a relative marker *de* appears in the end of the RC, and a head noun comes at the end of the phrase, as in (1).

- (1) a. [ \_ [zhui nuhaizi] *de*] nanhaizi (SRC; +A +A)  
 chase girl-ACC DE boy  
 b. [ \_ [ti qiu] *de*] nanhaizi (SRC; +A -A)  
 kick ball-ACC DE boy  
 c. [ nanhaizi [zhui \_ ] *de*] nuhaizi (ORC; +A +A)  
 boy-NOM chase DE girl  
 d. [ nanhaizi [ti \_ ] *de*] qiu (ORC; +A, -A)  
 boy-NOM kick DE ball

The Relativized Minimality (RM, Rizzi 1990) states that a local relation between X and Y is blocked if Z intervenes, and Z shares a relevant feature as X, as in (2).

- (2) X (relativized NP) ... Z (subject NP) ... Y (object NP)

According to RM, object RC (ORC) is expected to be more complex than subject RC (SRC) because there is a structural intervener (i.e. Z in (2)) in ORC but not in SRC. Hu, Gavarró, Vernice & Guasti (2016) argue that RC data by L1 Chinese children can be explained by RM. The feature-based RM further provides an advanced analysis. In (1a, c), both the subject NP and the relativized NP are animate (+A) so that the subject NP intervenes. In (1b, d), in contrast, subject NP is animate and the relativized NP is inanimate (-A), and the subject NP does not intervene. Given the feature-based RM, we predicted that the heritage speakers produce SRC in (1a, b), and they produce passivized RC in (1c, d) to avoid ORC, especially in (1c) because both the subject NP and the object NP share the same feature (+A).

We conducted a production task. Participants were six heritage Chinese speakers (mean age: 22.2 years old; mean stay in China: 9.2 years; mean stay in Japan: 13.0 years) and three Chinese natives (mean age: 22.3 years old). We had four types of stimuli as in (1), and each type contained five tokens. For each stimulus, a picture involving two NPs (i.e. Agent and Theme) was presented on the computer screen, and the participant was asked to describe one of the two.

Results showed that the natives produced SRC (1a, b: 100%) and ORC (1c: 0%, 1d: 53.3%). As for ORC, they produced passivized RC (1c: 100%, 1d: 47.7%) instead of ORC. The heritage speakers produced SRC (1a: 86.7%, 1b: 96.7%), and ORC (1c: 10.0%, 1d: 13.3%). They also produced passivized RC (1c: 73.3%, 1d: 80.0%). The difference between (1c) and (1d) for the natives can be explained by the feature-based RM, i.e., [+A +A] vs. [+A -A]. For the heritage speakers, they did not care about the features and consistently preferred passivized RC. We discuss the results based on the feature-based RM and smuggling (Collins 2005).

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## The Roles of Cognitive and Social Individual Differences in the Effectiveness of Explicit Phonetic Instruction in Second Language Pronunciation Development

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To date, the effectiveness of providing explicit phonetic information during the course of second language (L2) pronunciation instruction has been investigated extensively (Thomson & Derwing, 2015). Yet, the focus of such studies has often been on overall group gains and not on how individual differences (ID) impact on the varieties in such gains across learners (see DeKeyser, 2012).

In the context of 60 Japanese university students, the current study took a first step towards examining how L2 learners with different cognitive and social ID profiles differentially benefited from one semester of pronunciation instruction for L2 phonological acquisition. Their pre- and post-test spontaneous speech were analysed via segmental, prosodic and temporal measures. Subsequently, their gain scores were linked to their phonemic coding, associative memory, and sound recognition (via LLAMA: Meara, 2005), tonal/rhythmic imagery (via a musical aptitude test for Japanese: Ogawa, Murao, & Mang, 2008), and L2 pronunciation specific motivation (via a questionnaire adapted from Sardegna, Lee, & Kusey, 2014).

The results of statistical analysis showed a significant group improvement on segmentals and fluency thanks to the instruction. However, higher explicit learning aptitude was related to additional oral gains with their cognitive abilities being uniquely related to the corresponding dimensions of L2 speech: (a) associative memory, phonemic coding, and rhythm imagery for fluency; and (b) phonemic coding and tonal imagery for prosodic accuracy. In contrast, higher motivation was not predictive of more successful acquisition but more pronunciation practice. In line with cross-sectional evidence (Saito, 2017), the findings here suggest that cognitive (aptitude) and social (motivation) ID profiles differentially promote L2 pronunciation learning. While motivation is a driving force for extra efforts and practice, aptitude may be crucial to facilitate successful acquisition.

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## Learning direction as a factor in L2 prosody acquisition: Comparing pitch accent distributions to mark focus by Spanish learners of Dutch and Dutch learners of Spanish

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Successful L2 acquisition depends on many factors, learning direction being a relatively under-investigated, yet intuitively relevant one. Prior work showed that transfer from the L1 to the L2 occurs in all linguistic areas, but often speakers with different L1s, but the same L2 are compared or transfer is only investigated in one learning direction. Few studies made cross-linguistic comparisons in both learning directions, especially in L2 prosody acquisition. Hence, our study compares pitch accent distributions to mark focus by Dutch learners of Spanish (DLS) and Spanish learners of Dutch (SLD) to determine whether one group outperforms the other, which would imply that the direction in which L2 acquisition occurs affects successful development. In L1 Dutch, new elements produced in series of noun phrases (NPs) generally receive a pitch accent, while given elements are deaccented (blauwe auto, *GROENE* auto, 'blue car, green car' vs. blauwe auto, blauwe *FIETS*, 'blue car, blue bike', new words are italicized, accented words capitalized), but in L1 Spanish NP enumerations usually have a fixed pitch accent distribution in which the final word receives nuclear stress, irrespective of its focal status (coche azul, *bici AZUL*, 'blue car, blue bike' vs. coche azul, coche *VERDE*, 'blue car, green car'). Both DLS and SLD are known to copy their L1 pitch distributions to their L2, even at a high L2 proficiency. Comparing L2 learners of these languages in both directions determines if learning direction is a factor in L2 acquisition.

The Markedness Differential Hypothesis (MDH, 1) predicts that Dutch is more marked, and thus more difficult to acquire than Spanish in this context. Using an existing dataset 2, we present new analyses comparing NPs produced by intermediate (B1 level) and advanced (C1 level) DLS and SLD to determine which group approaches their target more. We compared 4 focus conditions: 1) both words of the target NP are different from the ones used in the previous NPs; 2) the first word is given in the preceding NP and the second one is new; 3) the first word is new and the second one given in the preceding NP; 4) both words are given in the preceding NP. Our results show that DLS produce more on-target pitch accent distributions than SLD, especially in condition 3 in which the difference between both languages is most salient, as it requires DLS and SLD to suppress their L1 intuitions most. Thus, our data corroborate the MDH and confirm that learning direction affects L2 prosody acquisition and deserves a place in current SLA models.

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## Input factors in the home and preschool: A resource for dual language learners' German plural form production?

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A growing body of research has related the quantity and quality of dual language learners' (DLLs') input to vocabulary development (e.g., Bowers & Vasilyeva, 2011; Duursma et al., 2007). Much less is known on whether input is related to various aspects of DLLs' morphology acquisition (Chondrogianni & Marinis, 2011; Unsworth, 2016).

We examine not only home but also preschool input factors in relation to plural form production in DLLs' societal language. We consider family language use, home literacy activities, mothers' societal language skills, and language stimulation in the classroom. We also consider whether DLLs received societal language input from their parents starting at birth, and their age at enrolment into preschool, which reflect both accumulated input and child internal factors.

Our sample consists of  $n = 112$  preschool-age DLLs from diverse language backgrounds learning German as a societal language. German plural form production is assessed with the SETK 3-5 (Grimm, 2015), and language stimulation in the classroom observed with the CLASS Pre-K (Pianta, La Paro, & Hamre, 2008). Preliminary multiple regressions controlling for socioeconomic status reveal that home literacy activities in German, a younger age at enrolment into preschool, and parents using German starting at birth are related to plural form production in German.

This suggests that language input is a resource for DLLs' German plural form production. It also suggests that parents can promote their DLLs' morphology acquisition using everyday activities (Williams & Thomas, 2017), and through an early start into preschool.

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## On the Acquisition of European Portuguese Liquid Consonants by Chinese Learners

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The acquisition of non-native liquid consonants has been a topic under discussion in L2 speech research. Despite the research mentioning difficulties exhibited by Chinese learners acquiring these segments in European Portuguese (EP) ([5]), to our best knowledge, no previous work has systematically analyzed the L2 acquisition of EP liquids.

EP shows four phonological liquids ([4]), /l/ ([l] in onset singletons and clusters, [ɫ] in codas), /ʎ/ (singletons), /r/ (onset singletons, clusters or codas), and /ʀ/ (singletons, mostly as [ʀ], [χ], [x]; [6]). Mandarin Chinese (MC) only exhibits /l/ (singletons) and /ɹ/ (singletons and codas) in its inventory ([3]).

This study examined the production of EP liquids by 14 MC learners through a picture naming task; phonetic transcriptions were performed by 3 researchers and acoustic analysis was undertaken to assist the transcription.

The results show that /l/ is acquired in singletons due to the positive L1 transfer, but it is often vocalized in coda; this may be attributed to a phonetically based tendency ([4]). The high accuracy of /l/ in onset clusters, absent in the L1, can result from the heterosyllabic nature of EP obstruent-liquid sequences ([10]) or the association of two segments to a single skeletal position ([3]). /ʎ/ is still under acquisition and half produced as a L1 category, [lj], owing to their acoustic and articulatory similarity. /r/ is not acquired in onsets, since the participants confuse it with /l/; the feature [lateral], contrastive for /r/-/l/ in EP, but redundant in MC may account for this failure. However, /r/ is better produced in coda. We argue that its consistent phonetic realization in coda by native EP speakers, as opposed to onset /r/ may trigger an early categorization of /r/ in this position. /ʀ/ is already acquired, probably because MC learners are sensitive to its fricative nature and thus realize it as [x], available in L1. Our results illustrate that a phonetically based phonological analysis gives us a better understanding about the interphonology.

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# Colloquia

## Colloquim Description

### **Exploring Trilingualism: Bilingual First Language Acquisition plus early Second Language Acquisition or Simultaneous Trilingual Acquisition indeed?**

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The colloquium pursues the investigation of emerging trilingualism in children by looking at language acquisition and use, covering quantitative as well as qualitative studies and considering different multilingual countries and different languages.

To date, studies on trilingual children are largely underrepresented in the field of multilingualism. Core aspects in this area are the linguistic development of trilinguals compared to mono- and bilingual children as well as the importance of language external factors in the transmission of three languages. It is indispensable to take into account different conditions, such as

(a) age of onset: bilingual first language acquisition plus an additional language or simultaneous trilingual acquisition.

(b) conditions of transmission/patterns of acquisition and consequences for the amount of language exposure and use: e.g. three languages at home; one language at home, one majority language and one foreign language learned in school; diversity of contacts, absence of the community language at home, both parents understand the non-community languages X and Y, consistency of input strategy.

(c) status of the languages involved (prestige, indigenous vs. immigrated languages).

These perspectives result in several research questions: How do the languages develop in trilingual acquisition? Which language strategies provide enough input? Is language use related to proficiency? Are there cognitive advantages of bilinguals who study a third language? What role does the majority language play? These and other questions will be addressed in the single presentations. Overall, we will discuss (1) which patterns of acquisition might be best for transmitting three languages successfully and (2) how competent but not (necessarily) equilingual trilinguals can become. The present colloquium shows promise to be an important contribution to the emerging research field of trilingual acquisition.

## Age of onset and the acquisition of Spanish copula verbs in early and late bi- and trilingualism: the same but different

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Along the recent literature on early trilingualism, it has been discussed whether acquiring three languages can be successfully achieved. L2/L3 acquisitionists are also concerned about the possibility of reaching a native competence in the target language. A factor that might influence the competence in the target language(s) is the age at which exposure starts (age of onset). In this respect, our paper contributes with a comparative study of the Spanish copula verbs SER/ESTAR in early and late multilingualism. First, SER and ESTAR are in complementary distribution in some contexts and with APs and locative PPs, they compete providing an aspectual difference. Second, whereas Spanish monolinguals acquire the copula distribution with ease, both bilinguals and trilinguals are delayed (cf. Arnaus Gil 2013 and Biró 2017). Finally, research on L2/L3 acquisition has also found difficulties with SER/ESTAR for those competing contexts, even in advanced stages in the learners' interlanguage (cf. e.g. Geeslin & Guijarro-Fuentes 2006).

Twelve longitudinal studies with 2 monolinguals, 6 Spanish-German/French bilinguals and 4 Spanish-Romance-Italian/German trilinguals were analyzed for copula acquisition. Moreover, data of the Licerias Corpus (TalkBank, Licerias, Valenzuela & Díaz 1999) was included and consisted of 18 learners of L2/L3 Spanish with different ages of acquisition: 4 primary school learners, 9 Lycée pupils (4 beginners and 5 advanced) and 5 university students. We hypothesize that children and learners will have more problems with SER/ESTAR in those contexts in which both compete. We further assume that age of onset will play a significant role for the mastery of the copulas.

Specifically, we expect the early multilinguals to perform similarly and show a better mastery of SER/ESTAR than their L2/L3 peers.

The results confirm our last point: The multilingual children acquire both copulas with ease and are adult-like by age 5. The L2/L3-group show however a learning effect: With increasing age and competence, copula accuracy is enhanced. With respect to our first hypothesis, we can conclude that the competing contexts are the ones which gather the most target-deviant productions for all Groups (early and late acquisition).

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## Trilingualism or L2/3 acquisition in early foreign language learning? Exploring patterns of cross-linguistic influence in simultaneous and sequential bilingual children

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This paper discusses if early foreign language learning among different types of bilingual children bears hallmarks of early L2/3 acquisition or resembles trilingual acquisition in terms of the (lack of) cross-linguistic influence. We address this issue by comparing (a) bilingual and monolingual students and (b) simultaneous and early successive bilingual students learning English with respect to transfer patterns and effects of the heritage language (HL) on English.

The present paper presents data from a longitudinal study on 200 bilingual and monolingual children acquiring English in primary school from age 5-6 (grade 1) onwards. Bilingual students were either simultaneous or early sequential bilinguals acquiring an HL on top of German in Germany. We assessed English receptive and productive vocabulary and grammar (BPVS, TROG, fluency) at the end of grades 3 and 4 as well as social and cognitive factors. We also measured productive vocabulary in the HL and German. Learners also took a sentence repetition task in English, and they narrated a picture story in English.

In hierarchical mixed-effects regressions, we first explore differences in English skills between monolingual and bilingual students. When background factors are controlled for, bilingualism has significant positive effects on general measures of English vocabulary and grammar in grades 3 and 4. In an analysis of the number and type of errors in sentence-repetition task and picture-story narration, there are no differences between monolingual and bilingual students. In particular, we observe no facilitative or non-facilitative transfer effects from the HL to English, even in cases where the HL and English overlap in grammatical properties (e.g. SVO or ADV-V order). Rather, both groups manifest non-facilitative transfer of German word order (verb raising). Second, we assessed whether age of onset of German within the bilingual group makes a difference for the acquisition of English vocabulary and grammar. Regression analyses yield no significant effects of age of onset on English skills or on transfer effects of the HL to English, suggesting that simultaneous and early successive bilinguals show comparable patterns in early English acquisition throughout. Further, these patterns are qualitatively similar to those shown by monolingual students acquiring English. In particular, (i) the absence of transfer from the HL and (ii) non-facilitative transfer of core syntactic properties from German designate both simultaneous and early sequential bilinguals as a type of early L2 learners rather than as a form of early trilinguals. However, bilingual advantages in early L2 acquisition lead to quantitative differences between monolinguals and bilinguals acquiring an early L2.

We argue that L2/3 acquisition models can best account for the observed transfer patterns from a dominant and typologically similar language.

## **Bilingual parents with different language combinations = Trilingual children?**

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After decades of research on bilingual first language acquisition (e.g. De Houwer 2009; Deuchar & Quay 2000; Nicoladis & Montanari 2016), studies have recently started focussing on trilingual acquisition in children (Hoffmann & Ytsma 2004). However, available data mostly consist in settings adapting the one-person-one-language strategy, whereas the third language is generally provided outside home.

The present study breaks new ground inasmuch as it focusses on bilingual parents who speak the majority and a (different) minority language. We aim at answering the following questions:

- (a) How can family language policy (FLP) – including grandparents – be described (King, Fogle & Logan-Terry 2008)?
- (b) Which language strategies do bilingual parents use (Romaine 1995, Lanza 1997, Braun & Cline 2014, De Houwer & Bornstein 2016)?
- (c) Can children with bilingual parents be considered heritage language speakers (Benmamoun, Montrul & Polinski 2013, Montrul 2016)?
- (d) What consequences for language acquisition arise from bilingual parents? Will both minority languages successfully be transmitted?

Two families with two children each will be analyzed. By applying a questionnaire featuring an input calculator, we pursue a detailed analysis of the absolute and the relative hours of exposure to the three languages. Then, we discuss which factors have an impact on language transmission in trilingual acquisition. On the parental level, bilingual language acquisition, self-assessment in both languages, schooling in the minority languages, language use, and FLP are examined carefully. On the children level, we highlight a descriptive analysis of input and output, of acquisition patterns and of language use.

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# Colloquim Description

## Multimodal input in L2 learning

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The proposed colloquium is concerned with an area that has only recently attracted the attention of SLA researchers: the effects of multimodality through audiovisual material (image + audio+ subtitles/captions) on L2 learning. Recent research has shown that watching subtitled television and having exposure to (and interaction with) internet-based audiovisual material enhances viewers' L2 skills (e.g., Sockett, 2014; Sylvén & Sundqvist, 2012). This is generally in line with theories of multimodal input (e.g. Mayer, 2009) but it also raises many questions as to how and when learning is promoted and the individual differences that influence such learning.

The colloquium aims at providing an up-to-date account of research in this area with a view to include innovative work and a range of approaches. The five papers in the colloquium explore different language dimensions (form and meaning of L2 vocabulary, L2 segmentation and speech processing skills), under different learning conditions (incidental and intentional learning) and time conditions (experimental situations, classroom extensive interventions), with participants of different ages (children and adolescents, adults), and different measurement instruments (eye-tracking for processing and explicit measures focusing on form and/or meaning learning). The role of a diversity of factors is also investigated in these papers: learners' prior vocabulary knowledge, individual differences (e.g., WM, ability to integrate auditory and orthographic input), L1/L2 on-screen text, imagery, and genre. The findings of these studies significantly contribute to our understanding of the role of multimodal input in L2 learning.

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## L2 vocabulary learning through extensive television viewing. Evidence from school classroom learners

**Author(s):** Carmen Muñoz<sup>1</sup> ; Imma Miralpeix<sup>1</sup> ; Geòrgia Pujadas<sup>1</sup> ; Ferran Gesa<sup>1</sup>

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Research has shown that L2 words can be learned through watching audiovisual material with subtitles in the learners' L1 or L2 (Montero Perez et al., 2014). Some studies have explored incidental vocabulary gains from extensive TV viewing at home (Koolstra & Beentjes, 1999), from viewing a few episodes from a series (Rodgers, 2013) or a single full-length TV program (Peters & Webb, 2018). However, no studies have yet examined the effects on school classroom learners of extensive viewing during a full academic year. Neither has it been investigated whether intentional learning of words through a pre-task yields higher benefits than incidental learning.

In order to fill these gaps, three intervention studies were conducted in which intact classes watched one episode of a series once a week over an academic year. In the first, two 6th grade classes watched the series with subtitles in Spanish (L1) and were taught the target words (TWs) before viewing each episode (+pre-task); a parallel group in the same school were also taught the TWs but did not watch the series. In the second intervention four 10th grade groups participated: two watched the episodes with subtitles in the L2 (captions) and pre-task while the other two were taught the TWs but did not watch the episodes. In the third intervention there were four 8th grade classes: two watched the episodes with L2 subtitles and two with L1 subtitles, one in each pair in a focused condition (+pre-task) and the other in a non-focused condition (-pre-task).

Higher vocabulary gains were observed for groups that viewed the series and results showed a) higher gains in the focused condition; b) larger gains at higher proficiency levels; c) L1 subtitles were adequate at a vocabulary size lower than 2,000 words, and L2 subtitles from that size up; d) L2 subtitles yielded slightly better (non-significant) results than L1 subtitles at the 2,000-words size; e) a large proportion of gains were maintained in a delayed post-test. The presentation will discuss the results in the framework of this line of research and their pedagogical implications.

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## Learning vocabulary from audio-visual input: The role of imagery and subtitles

Author(s): Elke Peters<sup>1</sup>

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Recently, more studies have started to focus on learning vocabulary from audio-visual input. Although the number of viewing studies is still limited, the findings show that learners can pick up new words incidentally when watching TV (Peters & Webb, 2018; Rodgers, 2013). Research has also shown that the presence of subtitles might increase learning gains (Montero Perez et al., 2014). Captions (= L2 subtitles) in particular seem to be helpful for learning the form of new words (Peters et al., 2016). Learning is sometimes explained in terms of the beneficial role of visual imagery in audio-visual input. Imagery refers to a correspondence between image and the aural occurrence of the word (Rodgers, 2018). It has been shown that documentaries contain more supportive imagery than other TV-genres and might thus provide more opportunities for learning (Rodgers, 2018). However, little is known about the effect of imagery on word learning and how it might interact with L1 subtitles and captions.

This study investigates the effect of imagery in three TV viewing conditions: (1) with L1 subtitles, (2) with captions, and (3) without subtitles. Data were collected with 142 Dutch-speaking EFL learners (age 17-18). A pretest-posttest design was adopted in which learners watched a 12-minute documentary. Knowledge of the target items was tested in a form recognition and a meaning recall test, in which the items were provided both orally and in print. The findings showed a significant effect of viewing condition. The captions group made the most learning gains in the form recognition as well as the meaning recall test. Secondly, the findings indicated that imagery was positively related to word learning. This means that words that were shown in close proximity to the aural occurrence of the words were more likely to be learned.

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## The impact of genre on L2 vocabulary learning through captioned video

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TV and internet video platforms like Netflix, HBO or Sky are an undeniable phenomenon attracting millions of viewers worldwide and exposing them to fiction and non-fiction genres and with the possibility of including captions. In SLA, our interest is associated with the language learning potential of such a widespread experience. While captioned video has been attested in its potential for language learning in terms of comprehension and vocabulary acquisition (Rodgers & Webb, 2017; Montero et al. 2013), it is largely unknown how different genres may differentially affect second/foreign (L2) learning. Genre, Miller (1984) suggests, should be defined not by the substance or the type of discourse it generates, but by the action it accomplishes. The goal of this paper is to investigate the specific impact of genre on initial L2 vocabulary learning during the viewing of captioned video. First, every genre is minutely defined and broken down into descriptors such as the degree of overlap between text and soundtrack, the amount of action competing with each caption, the degree of abstractness, or the language difficulty of captions. In a repeated-measures design, forty L1 Spanish/Catalan learners of English were exposed to four different types of fiction and non-fiction genres (animal documentary, comedy, edutainment TED talk, and procedural drama) in a randomized order. Pre-test/post-tests on word recognition, word recall, and meaning recall were administered containing 40 target words (10 per genre) and distractors. After each short video clip, comprehension questions and motivation questionnaires were used. Individual differences tests on working memory capacity, attention-switching ability, and inhibition were also administered prior to video viewing. Eye movements were recorded and fixation counts and duration, skipped captions, deflection rate and reading intensity measures were obtained. The paper reports on how words may be noticed and initially processed depending on the genre and as mediated by individual differences. Preliminary results from a pilot study already indicate an impact of genre on eye-movements but not on vocabulary acquisition. While audiovisual materials of all genres seem to foster learning, non-fiction genres seem to cause higher noticing of new forms. The results will be discussed in light of multimedia theories, our knowledge of attention mechanisms and memory capacity, as well as our own analysis of genres and how they may impact learning.

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## Incidental vocabulary learning from viewing: the role of working memory and vocabulary knowledge

Author(s): Maribel Montero Perez<sup>1</sup>

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Recently, there has been an increasing interest in incidental vocabulary learning from audio-visual input. There is growing evidence that vocabulary can be picked up while viewing video (e.g., Peters & Webb, 2018; Rodgers, 2013). Yet, very little is known about how this type of contextual learning is affected by individual differences such as vocabulary knowledge and working memory.

In order to fill that gap, we conducted an experimental study with 39 high-intermediate learners of French. We selected an authentic French (L2) documentary but added a manipulated version of the voice-over. This was necessary to include the 15 pseudowords, i.e., the targets for incidental learning, and control for learners' prior knowledge and lexical coverage. Each student was tested individually during two one-to-one sessions with the researcher. Individual sessions were chosen because they facilitate the administration of the working memory tasks and enabled us to measure partial vocabulary learning gains more accurately by means of interviews. During the first session, participants watched the video (45') and completed four surprise vocabulary posttests. The immediate posttests probed explicit knowledge of the 15 targets (form recognition, meaning recognition and meaning recall). We also administered a spoken timed lexical decision task in order to tap into tacit knowledge. During the second one-to-one session (one week later), participants completed two delayed vocabulary tests (form and meaning recognition) as well as a written vocabulary knowledge test and three working memory tests to measure complex working memory (OSPAN and backward digit recall) and phonological short-term memory (forward digit span test).

The findings of this study showed that viewing contributes to incidental learning at the level of form recognition and meaning recognition. The meaning recall test revealed a floor effect. Vocabulary knowledge was significantly and positively related to the immediate vocabulary tests. Working memory capacity, as measured by means of OSPAN or backward digit span was found to predict vocabulary learning from viewing with higher working memory capacity leading to more vocabulary uptake from viewing. The findings of this study clarify the role of viewing for vocabulary learning and refine our understanding of the role of individual differences in this process.

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## Audio-text synchronization during bimodal input exposure through L2-captioned video

Author(s): Natalia Wisniewska<sup>1</sup> ; Joan C. Mora<sup>1</sup>

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Bimodal input exposure provides training in the mapping of L2 sound sequences to orthographic forms potentially triggering changes in phono-lexical representations for L2 words and enhancing L2 pronunciation development. However, no research to date has investigated the role of exposure to L2-captioned video for L2 pronunciation learning. Within this broader research goal, the current study investigates L2 learners' skills in integrating auditory and orthographic input while reading dynamic texts in L2-captioned video. In addition, we assessed whether individual differences in proficiency and speech processing skills affected L2-learners' eye gaze behaviour when reading subtitles in the L2.

The eye movements of 38 L1-Catalan/Spanish advanced learners of L2-English were recorded while they watched short L2-captioned video clips. The Reading Index for Dynamic Text (RIDT; 1) was used as a measure of learners' amount of text processing and we computed an index of text-sound integration by calculating the extent to which fixations on selected words were synchronized with their auditory onsets. We assessed learners' L2 proficiency through an elicited imitation task and individual differences in three speech processing skills: (1) detection of text-sound mismatches in a novel read-while-listen task in English (L2) and Basque (L0); (2) L2 speech segmentation in a word-spotting task; and (3) sensitivity to frequency of sound co-occurrences in a statistical word learning task 2.

The results showed large inter-learner variation in the amount of text processed in the captions ( $M=0.52$ ,  $SD=0.18$ , 0.16-0.78 within the 0-1 RIDT index range). Most fixations on selected target words ( $M=70.4\%$ ,  $SD=17.2$ ) occurred before their auditory onset, indicating that learners (71.3%) mainly read the subtitles ahead of the soundtrack and auditory word forms followed (rather than precede) the lexical activation of the word via the visual text input. As expected, higher proficiency learners showed better segmentation skills in the L2 word-spotting task ( $r=.446$ ,  $p=.006$ ) and were better able to detect text-sound mismatches in the modality integration task in English ( $r=.513$ ,  $p<.001$ ), but not in Basque. L2 proficiency scores, however, were unrelated to the eye-tracking measures. Similarly, no associations were found between the speech processing measures (i.e. modality integration scores, word-spotting and statistical learning) and the eye-tracking measures when L2 proficiency was controlled for. These results shed light on the mechanisms underlying text-sound synchronization during bimodal input processing in captioned video.

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# Colloquim Description

## Turkish Heritage Speakers in Germany

**Author(s):** Michael Daller<sup>1</sup>

<sup>1</sup> *University of Reading*

The colloquium consists of five papers who analyse the language proficiency of Turkish heritage speakers in Germany and Europe from different theoretical approaches of research on Second Language Acquisition. Together, the studies presented in this colloquium allow to draw a fine-grained picture of the specific language proficiency of heritage speakers. Christoph Schroeder investigates the question whether the grammatical system of informal speech differs between heritage speakers in Germany and monolingual speakers in Turkey. He looks the use of the post-verbal position in informal spoken Turkish by bilingual pupils in Germany and compares it with the canonical use in Turkey. Montanari and Abel look at the learnability of vocabulary by Turkish and Russian heritage speakers in Germany. They come to the conclusion that amongst others factors frequency in the input is most important for vocabulary learning. Ongun shows that there is a strong correlation between working memory and receptive vocabulary in bilinguals and that working memory is an important factor for the learning of vocabulary in a bilingual setting. Bayram et al. base their research on Turkish heritage speakers on the “Experience to Output Hypothesis”. They show that there are robust correlations between experiential factors and various global (lexical richness and syntactic complexity) measures and give detailed insights in what factors determine the proficiency of these speakers. Daller investigates whether there is a vocabulary “gap” in bilingual heritage speakers as various studies show that the vocabulary size of heritage speakers is smaller than those of monolinguals. Daller shows that these “findings” are flawed due to an approach that compares the two languages of heritage speakers separately with that of monolingual speakers. When the Total Conceptual Vocabulary is investigated, no such gap can be identified.

## Turkish Heritage Speakers in Germany: Vocabulary Knowledge in German and Turkish

Author(s): Michael Daller<sup>1</sup>

<sup>1</sup> *University of Reading*

In the present chapter firstly the migration background of Turkish heritage speakers in Germany will be described, secondly the available literature on Turkish heritage speakers with a focus on vocabulary will be discussed and finally the results of a recent study on heritage speakers will be presented. The present study supports the findings of previous studies who aim to answer the question whether there is a vocabulary gap in bilinguals, whether bilinguals have smaller vocabularies than monolinguals. A deficit or gap is attested for bilinguals in many studies when they are compared with monolingual control groups (for a detailed overview see Thordardottir 2011). However, this gap seems to be an artefact of the methodology since bilinguals use their two languages in different domains (Grosjean 1982, 2001, 2015) and almost never develop a vocabulary in both of their languages that is comparable to monolinguals. We therefore need to include both language in an investigation on a potential bilingual vocabulary gap. However, even when both languages are investigated a deficit in vocabulary knowledge, especially productive vocabulary is attested in many studies (for a detailed discussion see Daller and Ongun, 2017). The present study is based on picture descriptions of 23 heritage speakers and two control groups for German (n=15) and Turkish (n=30). We take both languages into account and follow the approach of total conceptual vocabulary (TCC) as proposed by Swain 1972 and Pearson, Fernández and Oller (1993). If a bilingual knows a word for a concept not in both of their languages but only in, they still know the concept and get credit for knowing the concept even if they do not know the word in the other language. In our study we take both languages into account on the basis of this notion. We analyse picture descriptions in both languages and credit the bilingual heritage speaker for knowing the concept if they have a word for it either in Turkish, German or both. We come to the conclusion that although the heritage speakers seem to have a smaller vocabulary in Turkish and to some extent in German than monolinguals, the TCC is the same and there is no bilingual disadvantage or vocabulary gap when compared with peer matched monolinguals.

## The post-verbal position in heritage Turkish in Germany: Focus on register

Author(s): Christoph Schroeder<sup>1</sup>

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Access to the structures of the formal register of Turkish remains limited in the heritage context, thus structures belonging to the formal register are less frequent in both input and use (Küppers et al. 2015).

In the canonical SOV language Turkish, the post-predicate position is described as a position where new discourse material is excluded. In formal registers, this position is infrequently employed. In informal registers, however, the post-predicate position is not only more frequently occupied, but these registers of Turkish also seem more permissive with regard to the pragmatic conditions governing its use (Auer 1990, Schroeder 1995, 2002).

Previous investigations into word order in heritage Turkish (Doğruöz & Backus 2007) do not look at register. However, the thorough investigation carried out by Onar Valk (2015) reveals that the frequency of embedded clauses in the post-verbal position rises considerably in the Turkish speech of Turkish-Dutch bilinguals, as opposed to Turkish monolinguals.

For heritage Turkish in Germany, both Şimşek & Schroeder (2011) and Schroeder (2014) give examples from texts of bilingual pupils that demonstrate how the post-verbal position is employed in written texts in heritage Turkish.

In the talk, we will systematically compare the use of the post-verbal position in informal spoken heritage Turkish in Germany with the use of this position in written texts in the formal register. Data come from the MULTILIT Corpus, which collected spoken and written texts from Turkish-German bilingual pupils of different grades (Schroeder & Schellhardt 2015). We will investigate, whether uses of the post-verbal position in spoken and written texts in the heritage go beyond what would be acceptable in informal registers in Turkey's Turkish. In particular, we will identify the degree to which aspects of referentiality marking might be affected by change.

## Input Experiences Determine Heritage Speaker Linguistic Outcomes

**Author(s):** Fatih Bayram<sup>1</sup> ; Anika Lloyd-Smith<sup>2</sup> ; Tanja Kupisch<sup>2</sup> ; Jason Rothman<sup>1</sup>

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Most heritage speaker (HS) studies consistently show divergence of adult HS grammars from monolingual norms (see, Montrul, 2008, 2016). In recent years, however, there has been a significant upswing in research that seeks to understand precisely how and why adult HS bilingual outcomes can diverge so significantly from monolingual baselines and indeed from one another. In this talk, we introduce the Experience to Outcome Hypothesis (EOH) which claims that HS outcomes can, in principle, be traced directly to an individual's unique experiences with the heritage language.

Dominance in adulthood does not determine 1st language status or nativeness (Rothman and Treffers Daller, 2014); HSs are L1 (or 2L1) speakers, and thus a type of native speaker, of the minority language. HSs have, on a continuum, varying levels of experiences with their L1, setting the stage for both qualitative and quantitative input differences across HS individuals. Although monolinguals also have variable experiences, monolingualism tends to provide opportunities for equalization that is generally lacking for HSs—e.g., education in the standard language—and also provides an excess of high quality input in a sustained manner over the life-span, thus providing a minimum threshold of quality and quantity input exposure from which relatively low levels of variation obtain, at least as compared to the amount of L1 exposure and outcome variation on the HS continuum.

We discuss two factors that give rise to EOH; the input factor and the literacy factor, and how they interact to explain some outcomes of HSs, especially as it relates to disparate findings in the literature. In an effort to address this issue, we have a new look at some older data and complement them with new data from young (mean age=12,7; range 10-16; n=24) and adult heritage speakers (mean age=26,9; range=20-40; n=20) of Turkish in Germany that show—via mixed model logistic regression modelling—robust correlations between experiential factors and various global (lexical richness and syntactic complexity) measures. This indicated that increased experience with formal literacy in the HL decreases the likelihood of HS versus baseline differences (Bayram et al., 2017; Kupisch and Rothman, 2016), offering promising support for the EOH.

# Paper presentations

## Modelling the relationship between syntactic and semantic processing in L2 comprehension

**Author(s):** Anke Lenzing<sup>1</sup>

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This paper engages with relationships between syntactic and semantic processing in second language (L2) sentence processing and the related question of what kind of information is initially available to the L2 processor. This issue is discussed controversially in both general cognitive processing and SLA. Insights into these processes contribute to a deeper understanding of underlying language acquisition mechanisms.

I present and analyse data testing an approach to modelling this interface. The model combines aspects of Processability Theory (PT) (Pienemann & Lenzing 2015), a psycholinguistic theory of SLA, with key assumptions of the Online Cognitive Equilibrium Hypothesis (OECH) (Karimi & Ferreira 2015), a dual-route (semantic and syntactic) model of language processing.

The data I analysed were obtained in two cross-sectional studies of the L2 acquisition of the English passive involving 60 school-age learners of English at different stages of acquisition. The production data used to determine the learners' developmental stages came from communicative tasks. The comprehension data came from a sentence-picture matching task, an enactment task and a sentence matching reaction time experiment.

I compared 1) the learners' developmental stages, 2) their comprehension of passive structures and 3) differences in reaction times. The results reveal that the L2 learners' stages of acquisition correlate with their comprehension of passives. Further, there is an implicational development in the comprehension of different types of passive constructions. Finally, differences in reaction times are related to the processing of syntactic cues.

These findings mean that at the beginning of L2 acquisition, limits to L2 learners' syntactic processing prerequisites require recourse to the semantic route in L2 comprehension. The subsequent step-wise acquisition of syntactic processing procedures derived from PT enables the learners to increasingly rely on the syntactic route in L2 language processing in a predictable manner.

This indicates that there is a gradual development from shallow processing to full syntactic processing and supports a principled model of the relation between semantic and syntactic processing (Lenzing 2017).

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## **Incidental Second Language Vocabulary Learning from Out-of-class Exposure: the English Vocabulary Size of Children Prior to Formal Instruction**

**Author(s):** Eva Puimège<sup>1</sup> ; Elke Peters<sup>1</sup>

<sup>1</sup> *KU Leuven*

It has been argued that foreign language vocabulary is often acquired incidentally, i.e. as a by-product of activities not explicitly focusing on vocabulary learning (Hulstijn, 2003; Nation & Meara, 2002). Recently there has been an increasing interest in the role of out-of-class exposure in second language (L2) vocabulary learning. Studies have shown that exposure to English language media (TV, digital gaming, etc.) has the potential to boost learners' knowledge of English vocabulary (Peters, 2016; Sundqvist & Wilkström, 2015; Sylvén & Sundqvist, 2012). However, little is known about the effects of out-of-class exposure on English vocabulary prior to English instruction.

This talk will focus on the input-acquisition relationship by investigating the mechanisms underlying incidental L2 vocabulary acquisition by young Flemish learners who are exposed to large amounts of English language input before receiving English instruction. Specifically, the study aims to find out how many words young learners can learn incidentally from exposure only, and which factors affect the input-acquisition relationship. Data were collected from 200 Flemish children between 9 and 12 years old using a questionnaire about their out-of-class activities in English and three vocabulary size tests, including the Picture Vocabulary Size test (PVST) (Nation & Anthony, 2016). The PVST is a 96-item multiple-choice test measuring meaning recognition of English words. The PVST was administered in its original format, along with two adapted versions that measure meaning recall and form recall. Mixed effects models were used to determine the effect of word-related variables (cognateness, concreteness, SUBTLEX-US frequency) and learner-related variables (age, L1, socio-economic status, out-of-class learning activities) on learners' vocabulary knowledge. The findings indicate that high scores on the vocabulary size tests resulted from extensive out-of-class exposure and that word-related and learner variables played an important role in the learning process.

## From lexically specific to more schematic constructions? Four L2 Finnish case studies

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This paper explores the commonly held assumption posited by usage-based approaches (Langacker 2009) that constructions mainly develop from lexically specific items to more schematic, abstract constructions. The usage-based approach to language learning assumes that the development proceeds piecemeal from lexically specific instantiations rooted in the learner's specific usage events towards increasing generalization and abstraction. The role of item-based expressions in L2 learning has been demonstrated in several studies (e.g. Mellow 2006, Eskildsen, Cadierno & Li 2015). However, L2 learning does not necessarily start with one highly recurring formula, but the L2 system might emerge from the usage of some less frequently recurring exemplars (Eskildsen et al. 2015). Additionally, it has been shown that abstract, schematic constructions might be used right from the beginning of the learning process (Roehr-Brackin 2014).

We have shown earlier that for one L2 learner of Finnish, two frequent and superficially similar evaluative verbal constructions develop in different ways (Authors, in press). One developed from a partially fixed, partially schematic schema rooted in a specific communicative purpose of an interaction, while the other started from a more schematic and abstract construction exhibiting a greater number of variable instantiations already initially. The aim of the current paper is to examine how three other learners in the same context with different L1s develop their evaluative constructions.

The data were collected weekly over the course of 9 months from four Finnish L2 learners who acquired Finnish in an instructional setting. In total, the data consist of 131 written and spoken samples. All constructions used to express evaluation (i.e. that something is good/bad or desirable/undesirable) were analyzed qualitatively to explore the developmental path of each construction. Preliminary results point to a confirmation of the pattern found in the learner analyzed earlier, but also to individual differences. In my presentation, I will discuss the impact of these findings for usage-based theories of L2 development.

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## The role of cognitive variables, socioeconomic background and parenting style in the L2 acquisition of young learners

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While many studies have evidenced the impact of bilingualism and socioeconomic status (SES) on early cognitive and linguistic development (Bialystok 2017), there is a scarcity of studies focusing specifically on their combined effect. The few notable examples have shown bilingual effects on cognition in both low and high socioeconomic settings (e.g., Engel de Abreu et al. 2012). Children typically accumulate a range of experiences rooted in their SES and language background which together shape their development.

The present study explores the role of cognitive variables, SES and parenting style in the L2A of English in regular and bilingual programs. More specifically, we focused on the combined effects of early L2A and SES using parenting style as a potential mediating variable of the predictive power of SES. To do so, we aimed to answer the question of how cognitive abilities and L2 skills develop over time in regular EFL and immersion settings, and examined the combined effects of school type and SES in these contexts.

Participants (N=39) were students at regular and immersion primary schools in Germany. In the longitudinal study from grade 3 to grade 4, we used school type and SES as between-subjects factors, and receptive L2 vocabulary and grammar as well as cognitive variables as within-subject factors. In addition to test for receptive L2 vocabulary (BPVS III) and grammar (ELIAS Grammar Test II), we used a battery of standardized tests for cognitive abilities such as working memory capacity, phonological short-term memory, non-verbal intelligence and phonological awareness. Data on the SES based on maternal education level and parenting style were elicited using a parental questionnaire. Repeated measures ANOVAs and regression analyses revealed that the immersion group outperformed their non-immersion peers regarding all linguistic variables and phonological awareness at both times, and at the end of grade 4 regarding the other cognitive variables. Furthermore, maternal education level was significantly correlated with parenting style (e.g., time spent talking, playing and laughing together), and in turn, parenting style predicted phonological short-term memory and awareness as well as receptive L2 skills. With regard to the combined predictive power of school type and SES, school type appeared to exert a more marked influence on cognitive and linguistic development than maternal education level showing that immersion programs may help level the playing field for children of low SES.

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## Repetition as a means of establishing cohesion in L2 texts

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Cohesion, i.e. text surface connections between sentences and parts of a text, is achieved by different grammatical and lexical cohesive devices, the latter also involve repetition (Halliday and Hasan 1976; Linke et al. 2001; Pasch et al. 2003). Cohesion in the context of SLA means that L2 learners should be able to connect their sentences / parts of their texts with each other on the text surface in an appropriate manner so that the whole can be regarded as a text (Canale 1983; Bachman and Palmer 1996; CEFR 2001; Celce-Murcia 2007).

The present study looks into L2 learners' use of repetition as a means of establishing cohesion in their written texts. This corpus-based study analyses 30 texts written by L2 learners of German and 30 texts written by L2 learners of English.

The analysis concentrates on the frequency of different repetition types as well as on the appropriateness of their use. In addition, the analysis addresses the differences between German and English as L2 in the Croatian context. The preliminary results show that repetitions of words are more frequent than repetitions of parts of words and repetitions of sentence/clause patterns. The qualitative analysis is performed using the criteria especially designed for the purposes of this investigation.

The analysis of the use of repetitions as a means of achieving cohesion in L2 written texts point to some problems at both learning and teaching level. These will be addressed in the discussion section of the talk.

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## The impact of national language requirements on low-literate L2-learners

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Low educated, low-literate L2-learners (LESLLA-learners) have long been part of the migrant population in Europe, and even more so recent years. Parallel with the proportional increase of LESLLA learners, European nations have begun implementing or increasing language requirements for permanent residency, citizenship and other purposes (CoE, 2013). As a consequence, in most European countries migrants with a LESLLA background are now obliged to demonstrate language skills at the same level as the general migrant population.

Even though LESLLA learners make up a sizeable proportion of the migrant population, they remain an understudied population in SLA research (Tarone, 2009). Few theories and models of SLA are based on, or take into account how LESLLA-learners approach the task of learning a second language, the obstacles they face and how they deal with them.

In this paper, we will show how language requirements impact LESLLA learners in two European countries, Belgium and Norway. Even though the sociopolitical realities in these countries are quite different, the outcomes of the two studies are remarkably similar and complimentary. The Norwegian study compares the performances of learners with different educational backgrounds (N > 2000) on the same test. Using Rasch analysis, bias analysis and nominal regression, the study shows that low educated learners perform significantly different from other test taker groups, especially on the written skills. The Belgian study compares the performances (N > 1000) of LESLLA learners to those of the general migrant population on the same test, and comes to similar conclusions: From spelling to orthography and syntax, writing tasks may present LESLLA learners with insurmountable obstacles. Additionally, this study offers an insight into the characteristics of written performances by low educated learners by considering a number of complexity, accuracy and fluency indicators.

Since this paper has implications that are of both empirical and societal value, the presentation will end by discussing the ethical and professional implications of using language requirements to determine access to basic human rights.

## The role of the L1 in the L2 predictive processing of the dative alternation

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L2 learners have been argued to show deficits in predictive processing (Grüter & Rohde, 2013). This study tests if adult L2 learners can use different selectional restrictions on the dative alternation in predictive processing and if L1 differences affect prediction. In English, ditransitive verbs can take double-object dative (DO) or prepositional-object dative (PO). However, there are selectional restrictions on the type of their arguments: Non-alternating verbs, e.g. *donate*, require a fixed pattern for their arguments (only PO), while alternating verbs, e.g. *pay* and *send*, allow two dative realizations. However, verbs have individual biases for DO or PO, e.g. *pay* (DO) and *send* (PO). In sum, the argument structure of ditransitives shows categorical restrictions for non-alternating verbs and gradient preferences for alternating verbs.

In on-line sentence comprehension, native English speakers show sensitivity to categorical and gradient properties of verbs (Scheepers et al., 2007; Tily et al., 2008), yet it is unclear if L2 learners recruit this information in building syntactic structure and if the L1 plays a role. We investigated the processing of double object constructions by L1 German and L1 Turkish learners of English. Like English, German allows DO and PO. In Turkish, however, DO is the only option. Turkish also differs from English and German in being verb-final, so that the verb cannot be used for predictions about upcoming structure.

We tested 70 German and Turkish intermediate to advanced L2 learners of English in visual world eye-tracking. Non-alternating (PO) verbs were compared with alternating DO- and PO-bias verbs in spoken sentences (1), while participants were looking at visual displays with an agent, a recipient referent (e.g. *the woman* in (1)) and a theme referent (e.g. *the money*). For non-alternating verbs, all participants showed more looks after the verb to the theme referent than with alternating verbs. Yet, unlike German learners, Turkish learners displayed delayed sensitivity to categorical differences between non-alternating and alternating verbs. For alternating verbs, German learners displayed verb bias effects in both DO and PO constructions. Turkish learners showed verb bias effects only in PO constructions, suggesting emerging sensitivity to the less marked PO order in English. These findings indicate that L2 learners can use both categorical and gradient restrictions on the dative alternation in L2 predictive processing, but L1 effects may delay their application. We suggest that L2 learners do not have a generally limited ability to generate predictions but show L1 effects in the degree and timing of applying argument structure restrictions. We discuss implications for current approaches to L2 (predictive) sentence processing.

### Materials

#### (1) a. DO construction:

The man will \*donate/pay/send the woman the money.

#### b. PO construction:

The man will donate/pay/send the money to the woman.

## The Effects of Incidental Vocabulary Learning: A Meta-Analysis

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Incidental vocabulary learning gains have been shown to be affected by several factors such as text characteristics (Webb, 2008), learners' second language (L2) proficiency (Horst, Cobb, & Meara, 1998), and mode of input (Brown, Waring, & Donkaewbua, 2008). One way to disentangle the complexities of the many findings on incidental vocabulary learning is to systematically summarize primary study findings. This has already been done in the domain of first language (L1) incidental learning (Swanborn & de Glosper, 1999). The current study is the first to meta-analyze L2 studies with an aim to clarify the findings of studies on incidental vocabulary learning.

Altogether 19 primary studies were retrieved that provided 23 different effect sizes and a total sample size of 1,976 participants. These studies were coded for a total of 10 substantive and methodological features as independent and moderator variables: (1) L2 proficiency (basic vs. beyond basic), (2) institutional level (primary school, secondary school, university), (3) text type (narrative vs. expository), (4) text audience (written for L1 users or L2 learners), (5) treatment purpose (announcement of an upcoming comprehension test or not), (6) spacing (spaced learning vs. massed learning), (7) target-word type (single words vs. collocations), (8) mode of input (reading vs. listening vs. reading while listening vs. viewing), (9) test format (form recognition, meaning recognition, meaning recall), and (10) lexical coverage.

Results showed that there were large overall effects for incidental vocabulary learning on both the first and follow-up posttests. A series of moderator analyses revealed that incidental learning gains vary significantly as a function of learners' characteristics (L2 proficiency and institutional level) as well as substantive variables pertaining to textual features (text type, text audience, lexical coverage) and treatment conditions (spacing and treatment purpose). Both pedagogical and methodological implications as well as possible explanations for the results will be provided with reference to the previous literature in incidental vocabulary learning.

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## Towards independent language use: The role of formulaic sequences in the developing L2 system

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An important issue in SLA research is the role formulaic sequences play in the developing L2 system. Formulaic sequences are commonly learned and used in the EFL classroom particularly with beginning learners and can enable them to communicate in the target language right from the beginning. However, although it is generally acknowledged that formulaic sequences are a common feature of early learner language, there is no consensus in the field of SLA on their nature and role in the L2 acquisition process.

In this paper, we take a psycholinguistic perspective on this issue. Within the framework of Processability Theory (e.g. Pienemann & Lenzing 2015), we view formulaic sequences as holistically stored units that occur as unanalysed forms in beginning L2 learners' speech. First, we propose a definition of different types of formulaic sequences as well as a means of identifying such sequences. The identification of formulaic sequences in learner data is based on distributional analyses of individual L2 learners' speech samples and the test of the null hypothesis, that is, the exclusion of other structural possibilities. This includes a focus on grammatical as well as ungrammatical, idiosyncratic utterances (Lenzing 2013, 2015).

We investigate the development and use of formulaic language in the speech of L2 learners at different stages of acquisition in an empirical study with 110 German primary and secondary school learners of English from grade 3 to grade 9. The spontaneous oral speech production data were elicited on the basis of picture differences tasks that engage learners in communicative interaction with a partner. These tasks have been shown to have the capacity to elicit a range of morphological and syntactic structures according to the learners' individual developmental stages. The distributional analyses of the data reveal the extent of use of formulaic sequences by beginning and more advanced child and adolescent learners of English. Based on examples of their oral language use, we show how with increasing proficiency the use of these sequences becomes a smaller component of their L2-production. As they proceed in their acquisition process, the learners acquire subsequently more processing resources and begin to use the language more and more flexibly and independently.

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## Relative language competences and cognitive development: Bilingual preschoolers' performances on spatial problem-solving tasks

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Research has found that bilingualism boosts cognitive development in children (Bialystok, 2017) and could offset developmental disadvantages in children from lower SES backgrounds (Engel de Abreu et al., 2012). The present study explores the effects of bilingual language proficiencies and relative language balance on spatial problem solving (related to effectively solving mathematical problems, Sarama & Clements, 2009), assuming that continuous controlling of two languages enhances cognitive flexibility and the ability to change perspectives (Bialystok & Majumder, 1998; Hartanto et al., 2018). We tested 39 Turkish-German bilingual kindergarten children (mean age=5.2; SD=0.9) with spatial orientation tasks (SON-R 2½-7, Tellegen et al., 2005). Language proficiencies in Turkish and German were assessed using the CITO (2014). The prediction was that children who had more balanced and higher proficiency in both languages would perform better in spatial orientation tasks than their less balanced and lower proficient peers (Threshold Hypothesis, Cummins, 1979; see also Becker & Carrol, 1997). Correlational analyses of spatial orientation scores, language proficiencies, and relative language balance yielded no significant correlations between spatial orientation and Turkish proficiency ( $r=.16$ ,  $p=.35$ ) and German proficiency ( $r=-.11$ ,  $p=.49$ ). However, spatial orientation scores and language balance correlated significantly ( $r=-.50$ ,  $p=.001$ ), as children with smaller language proficiency differences had higher spatial orientation scores. As such, this indicates that it is much more language balance than proficiency in the two languages that affects these children's cognitive development as indexed by spatial orientation tasks.

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## The use of temporal adverbials in the narrations of monolingual and bilingual children

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This paper focuses on the use of temporal adverbials of position (TAP) like *then* or *now* in the film retellings of young monolinguals and bilinguals in their L1 Russian and German, where they play an important role in the narrative discourse by locally connecting two temporal intervals. Depending on the nature of the related intervals, we can distinguish between deictic (*now*) and anaphoric (*after that*) TAPs. The former link the topic time to the anchor time (Klein 1994), while the latter connect the topic times within the narrative time structure. The anaphoric connection marked by TAP can be more specific (*five minutes after that*) or less specific denoting an additive or slightly causal meaning of consequentiality (*then*, Fabricius-Hansen 2001).

The previous studies of adult L1 German speakers showed a low use of *dann* ('then') in around 5 % of all utterances (Roßdeutscher/von Stutterheim 2006) indicating consequential meaning and episode marking. Halm (2010) found for child L1 German speakers, that they use TAP far more frequently and that the frequency decreases with age. The children aged 7 to 10 used only the TAP *dann* ('then') in the temporal meaning, and the elder children aged 11 to 14 developed the functions of episode and consequentiality marking for this TAP using it in ca. 60 % of all utterances. The 13-14 year olds used deictic TAP as well.

The present study is based on 80 film retellings of monolingual L1 German (N = 20), L1 Russian (N = 20) and bilingual speakers in their both language (N = 40) aged 7 to 14. The results showed that the monolingual Russian speakers of all age groups use less TAP than the monolingual German speakers of German and reveal a different development pattern. The youngest children use mainly temporal *potom* ('then, after that'). Starting from the age of 9 the use of TAP decreases, and children start using specific TAPs. At the age of 14 there is an increase of use of deictic TAP. The data of bilingual speakers showed a slightly different pattern, but the use of TAP was similar in their both languages. Like the monolinguals, the youngest bilingual children use less specific *dann* or *potom* ('then') while the 9-10 year olds used specific topic time shifters in both languages. The speakers aged 11 to 14 used mostly the temporal or causal TAPs *dann* or *potom*. Only one speaker uses deictic adverbials in Russian and German.

The results indicate that the monolingual speakers establish the principle of chronological order as a part of a topic only at 13-14 as they started to concentrate on the discourse line by using deictic TAP. Also, it shows that the use of topic time shifters in Russian and German probably depends on the use of other linguistic means like perfective aspect. The study suggests that bilingual require a greater period of time to acquire the L1 constraints of German and to acquire the use of TAPS in both German and Russian.

## Dutch second and foreign language educators' engagement with L2 research

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Many L2 studies aim to inspire L2 classrooms. A way to promote this research-practice interface, is by disseminating research findings so that L2 teachers can make evidence-based pedagogical decisions, and thereby advance teaching and learning (Paran, 2017). Despite the hypothesized advantages of such an interface, disparities between research and practice have often been observed (Byrnes, 2016). Earlier studies showed that practical constraints (e.g., time), as well as physical and conceptual inaccessibility of research articles are important barriers to educators' research engagement (Borg, 2009). As Marsden and Kasprovicz (2017) note, however, little concrete data exists about the extent and nature of L2 educators' engagement with research, especially in other than ESL/EFL contexts. Therefore, this study -a partial replication of Marsden and Kasprovicz (2017)- aimed to provide insight into the frequency and characteristics of Dutch L2 educators' engagement with published research.

We combined a survey (n=774) and an interview (n=21). Participants were L2 (i.e., Dutch) and FL (e.g., English) educators in the Netherlands. The survey asked after participants' background (teaching qualifications, language(s) taught, etc.), extent of research engagement, nature of publications they read, interest in research, factors influencing research engagement, perceptions of physical/conceptual research accessibility, and factors currently/ideally influencing their teaching. The interview probed deeper into the issue of conceptual accessibility.

Results confirm Borg's (2009) and Marsden and Kasprovicz's (2017), with respect to both the extent to which educators engage with published research and the obstacles they face. Research engagement showed to be low; e.g., 66% of the survey participants never read academic articles, with lack of time being the main reason for not engaging with research (more). Interestingly, participants do perceive L2 research to be relevant to their practice, and would prefer to have research inform their pedagogical choices more. To be able to do so, participants indicated, accessibility of L2 research needs to be improved. Our findings therefore support Marsden and Kasprovicz' (2017) plea for open access, conceptually accessible summaries of research articles and the OASIS initiative ([www.iris-database.org/iris/app/home/accessible-summaries](http://www.iris-database.org/iris/app/home/accessible-summaries)), as a suitable way to bridge the research-practice divide.

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## Comparing L1 and L2 processing of generic reference in French and English: a self-paced reading study

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While research on simultaneous bilingualism has provided some insights into how bilinguals interpret markers of genericity (Serratrice et al, 2009; Kupisch, 2012); little is known about how L2 learners acquire generic reference (Ionin & Montrul, 2010). French is the most restrictive Romance language as it requires the projection of a determiner in argument position when English allows bare mass nouns and bare plural nouns in non-specific and generic contexts.

These cross-linguistic differences allow us to (i) examine whether the co-activation of distinct morphosyntactic forms (article system) depending on the semantic context (specific vs. generic) leads to language interference in French-English bilinguals' comprehension of sentence structure; (ii) assess how grammatical knowledge will affect real time comprehension; (iii) consider the role of language exposure and of the relative language dominance on the direction and magnitude of cross-linguistic transfers.

The two studies include 30 L1 French intermediate to near-native speakers of English (mean age 24.47) and 20 L1 English intermediate to near-native speakers of French (mean age 24.47) and 27 French monolinguals (mean age = 19.95) in France. Parallel data is currently being collected in the UK (L1 English, L1 French L2 English, L1 English L2 French speakers). LEAP-Q questionnaires (Marian, Blumenfeld, & Kaushanskaya, 2007) were used to measure the participants' level of proficiency. L2 grammatical knowledge was measured with an Oxford Placement test.

All the bilingual participants took part in a self-paced reading task and an untimed acceptability judgement task in their L1 and in their L2. The experimental design manipulated grammaticality in two conditions (generic; specific) within subjects, as well as group, and proficiency measures between-subjects. Language exposure was treated as a continuous predictor. The materials included 16 paired-sentences with a subject NP in generic context, 16 in specific context controlled for noun type (mass vs. count noun) in English and gender in French.

As predicted, we do not observe any group differences in both the off-line and on-line tasks which suggest that L1 and L2 speakers have acquired sufficient grammatical knowledge to process differently grammatical and ungrammatical markers of genericity regardless of language proficiency. In the English AJT, we observe a significant effect of grammaticality on sentence rating. We also observe an effect of condition and a marginal effect of group. Despite the absence of grammaticality in the online task, there are performance differences between the L1 French and L1 English can be explained by influences from the learners' L1. To-date, these preliminary results do not show any effect of the measures of language proficiency. These results will be discussed in terms of explicit vs. implicit knowledge (R. Ellis, 2005).

## Learning noun semantics: an initial exposure study

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Studies of language learning in absolute beginners have shown that very little exposure is needed to associatively link sound forms to pictures (Gullberg et al. 2010; Carroll 2012, 2014). These studies have established the utility of ostensive gesture for referent-locating or presenting learners with a single semantic target (proper names). Less is known about learners' ability to identify the meaning of nouns in terms of specific ontological categories when presented with pictures that are ambiguous and when knowledge of the target language itself is minimal.

In this presentation, we report on a study of noun learning involving different semantic classes in an initial exposure study. 20 English-speakers were exposed for the first time to "Lab Persian" (a simplified version of Persian). Participants trained on 24 nouns presented once in sentences in one of three positions (initial, medial or final) as they saw 24 still pictures. Stimuli were fully randomized for all participants. Lab Persian words were selected to express the following English translation-equivalents ({bowl, chair, fish, pillow, spoon, table} = THING-concepts, {artist, adult female, adult male, child, mailman, shopkeeper} = INDIVIDUAL-concepts, {clothing, cutlery, dishes, family, furniture, fruit} = AGGREGATES, {fabric, paper, snow, water, wood, wool} = SUBSTANCE). All were concrete, imageable concepts.

Participants were asked to "learn the names of the items". Stimuli were presented in cycles of exposure-then-test. Participants were tested on their recognition of the nouns in questions in the Lab Persian equivalent to "Is it X or Y?". Test item and foil positions were counter-balanced across positions. Foils consisted of 50% familiar items and 50% novel items. We measured number of exposures to learn all items over 10 presentation/test cycles.

In our presentation, we will report on accuracy scores and number of cycles of exposure required to match words to pictures in terms of the properties of the target items, of the carrier sentences, and of the pictures. We will discuss our results in terms of how visual stimuli support inferences to intended meaning.

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## How an app can help to improve the assessment of children's communicative capacities in the L2 in authentic communicative settings?

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This paper presents the implementation of a new game-based assessment for preschool children aged four to six years with German as a first and second language. The assessment is theoretically grounded in usage-based linguistics and incorporates language learning studies focusing on children's language production in authentic communicative settings (e.g., Behrens et al. 2016; Madlener et al. 2017). Particularly, it aims at evaluating bilingual children's language capacity in the L2 in authentic communicative settings in the linguistically and conceptually challenging domain of spatial language. In order to avoid traditional examiner-examinee test situations we developed an interactive app for mobile assessment following the principles of Serious Games. As a result, the new assessment tool enables examinees to play the game on a tablet by themselves while the examiner is nearby and merely controls the child's tablet via a second device. Using a Serious Game environment, children become experts in the game and their use of language influences the course of the game's character (i.e., children's interaction partner). In order to elicit children's linguistic abilities as authentically as possible, test items are embedded in communicatively relevant situations applying a child-friendly background story. Pilot studies of the various prototypes of the app indicate how the settings provide the children with incentives to engage in communication (Roche et al. 2016).

The goals of our talk is (a) to show how an app based on principles of Serious Games as well as empirical findings of authentic child language production can help to enhance the assessments of children's communicative capacities in the L2 and (b) to present preliminary results of the app validation tests focusing on learner strategies and differences between children with German as L1 and L2 in the use of spatial expressions.

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## Foreign language learning with multiple sclerosis: A pilot study

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It is currently estimated that more than half of the patients diagnosed with multiple sclerosis (MS) are affected by cognitive deficits (Benedict et al., 2006), which may hinder learning. Even at an early stage, persons with MS (pwMS) may show slower processing speed, fatigue and deficits in their episodic memory, potentially impacting negatively on their foreign language learning ability. Cognitive rehabilitation interventions are generally designed to help manage changes in cognitive functioning of pwMS, but do not have much real-life relevance in terms of learning new skills and are thus not always motivating. A language learning program might be a more engaging and cost-effective alternative to such general cognitive interventions, but it is unclear, what effects such a program might have in terms of language learning.

This paper will present an intervention study that was designed to investigate whether or not pwMS are as able as their healthy counterparts to learn a foreign language. The paper will introduce selected results from a pilot study that involved pwMS (N=14) and a matched control group (N=19). The participants underwent extensive pre-screening for an array of parameters. The German version of the BRB-N (Brief Repeatable Battery of Neuropsychological Test, Scherer et al. 2005) was used to confirm full cognitive functioning in all participants prior to the intervention, and participants also self-assessed their foreign language ability before taking part in an 8-week English language course of three hours per week. Three instruments were used to measure language ability before and after the intervention: A 33-item listening comprehension test and a speaking test, both bespoke versions based on the British Council APTIS, and a 170-item vocabulary test in the format of an adapted Vocabulary Knowledge Scale (Wesche & Paribakht, 1996). Results showed a considerable improvement in test scores from pre- to post-intervention for both groups, with pwMS showing even more gains in some measures. The paper closes with an outlook on relating the language test results with magnetic resonance imaging data and a discussion of the potential of language courses as a viable avenue for cognitive rehabilitation programs.

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## Transfer in gesture: L2 descriptions of placement events

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Semantic information in placement verbs may differ across languages. Speakers of English tend to use the general placement verb 'put', which can be used to describe most placement events, regardless of the object being placed and the manner of placement (e.g. 'I put the cup on the table'). In Dutch however, speakers choose between two more fine grained placement verbs, depending on the object and on whether object placement is vertical ('zetten') or horizontal ('leggen'). Thus, for speakers of Dutch, not only the movement but also the object matters, as this determines which verb must be used.

This language-specific meaning of placement verbs can be reflected not only in speech, but also in gestures. Prior work showed that speakers of English, in line with the general placement verb 'put', produced many gestures indicating only the path of the placement event (Gullberg, 2009). Speakers of Dutch, however, often produced gestures that also indicated a focus on the object itself, by using specific object related handshapes (Gullberg, 2011). Given this difference in placement verb focus between Dutch and English, a question is whether gesture production during L2 placement event description can indicate whether transfer in placement verb meaning from the L1 occurs.

To study this question, 10 speakers of Dutch took part in a placement event description task in English. Participants described 32 video recorded placement events in English to a non-Dutch interlocutor. For each event, it was annotated which placement verb was used, whether a placement event gesture occurred, and if so, whether this gesture showed only the path of the movement, or also an object incorporating handshape.

Results showed that Dutch L2 speakers of English often (65% of all cases) used the verb 'put' to describe the placement events, implying that speakers had acquired the L2 meaning of the placement verb. However, for gesture production, it was found that in 64% of the 181 gestures, participants produced a gesture with an object incorporating handshape, which suggests that while speakers were on-target in their speech production, gesture production showed that there was L1 transfer in placement verb meaning, apparent by a remaining focus on the object of the placement event.

This study shows that L1 transfer may exist even in a relatively simple switch from fine grained L1 to general L2 placement verbs, and when L2 speech production is native-like. Gesture analysis can serve as a tool to uncover this process.

### Acknowledgments

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## Individual Differences in L2 Sentence Processing: Effects of Working Memory, Language Experience and Inhibitory Control

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Considerable variability has been observed in both native (L1) and non-native (L2) online sentence processing ability (see, e.g. 2 [6] for reviews). In the L1 literature, it has long been established that this variability is strongly associated with individual differences in verbal working memory capacity (vWMC) (e.g., 1 for a meta-analysis). There is also a growing body of evidence supporting that the relationship between vWMC and sentence processing is mediated by language experience [7] [3]. However, studies of the relationship between vWMC and L2 processing ability have been scant and have produced inconclusive results (see, e.g. [4] for an overview). Moreover, no attempt has been made to determine to what extent vWMC capacity is impacted by L2 experience. And finally, there is an increasing effort to integrate the role of inhibitory control in L1 and L2 learning and processing [5].

The present sets out to replicate the results reported in a recent L1 study [3] in a group of intermediate to advanced L2 learners of English (N=48) and to extend that study by integrating the role of inhibitory control. Using a within-subject design, we could replicate the correlation between vWMC – as gauged by a reading span task – and two proxy measures of L2 experience.

In a next step, we determine whether and to what extent online L2 processing ability of garden-path sentences in a self-paced reading task is affected by individual variation in vWMC and inhibitory control, measured by a Stroop color-word task. Mixed effects modeling revealed that while the magnitude of the garden path effect was not affected by vWMC, it was significantly associated with greater inhibitory control as evinced by higher Stroop interference scores.

Taken together, these findings suggest that research on L2 sentence processing can benefit from the integration of L2 experience measures and from a stronger focus on inhibitory control as a locus of individual differences.

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## L2 attrition after minimal input exposure: Evidence from a route direction task

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This paper describes the attrition of an initial interlanguage following increasing time periods of lack of input and L2 use.

Within the Italian edition of the VILLA project (Dimroth et al. 2013), 31 Italian learners with no experience of the target language or related languages took part in a 14-hour L2 Polish course taught by a professional teacher, whose speech represents the only L2 input available. Classes were recorded and transcribed, so that learner output can be rigorously correlated with the input received.

Among other tests, after 14 hours of exposure to the input learners took part in a Route Direction task (Klein, 1982) in which they were asked to guide an imaginary tourist along a route indicated on a city map. The task implied the use of both formulaic language (e.g. skręcić w prawo “turn right”) and more complex structures such as prepositional phrases (e.g. obok sklepu “near the shop”), requiring learners to select the correct preposition on the basis of the intended meaning, and then case-mark the governed noun accordingly.

As the activity had been extensively rehearsed during classes, learners were familiar with all necessary vocabulary and linguistic structures, so that in this respect the VILLA input can be characterised as notional-functional and situational (Richards & Rodgers, 2001). In addition, it is minimal with regard to both time of exposure (14 hours) and the range of vocabulary and linguistic structures it comprises.

Following the end of the experimental course, learners were asked to perform the same Route Direction task after 4 months and again after 8 months, during which time none of the subjects reported any contact with Polish. The study thus investigates which linguistic structures and vocabulary items are most likely to erode as a consequence of lack of L2 input and language use, and which, on the contrary, seem to be maintained over time (Bardovi-Harlig & Stringer, 2010). The results are discussed in light of the peculiarities of the VILLA input, including the frequency and distributions of individual words and fixed phrases and the productivity of linguistic structures. The paper concludes with a few pedagogical considerations on the effectiveness over time of intensive break-through L2 courses.

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## Assessing task difficulty: a systematic procedure

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The relationships between task complexity (or difficulty, as it will be called in this presentation) and linguistic performance is a key issue in SLA research. However, early works rarely provided empirical evidence to demonstrate whether a task was actually more or less difficult than another. More recently, several attempts have been made to explicitly gauge task difficulty, for instance by asking participants about their subjective perceptions or observing their performance in a secondary task. Pallotti (2017) proposes a complementary approach. Developing Skehan's (1998) notion of a task's "code complexity", he argues that different tasks may require, by their very nature, different types of linguistic structures, which in turn may be more or less difficult for L2 learners. In order to test this relationship, he proposes to look at native speakers, whose performance on task should primarily be a reflection of the task's demands, rather than an interaction of these demands with variable levels of linguistic proficiency, as is often the case with L2 users (Long 2015). The procedure involves two main steps. First, some linguistic behaviours are deemed to be more difficult for L2 learners, according to the results of previous SLA research. Then, tasks are seen as requiring these behaviours to a higher or lower degree, based on the observation of native speakers' performance on them, and can thus be said to imply more or less difficulty for L2 users.

Pallotti (2017) followed this approach to assess one dimension, interactional difficulty. This presentation will apply it to other dimensions, such as lexical, morphological and syntactic difficulty. Based on existing research, a number of features in these areas are identified that are known to be difficult for L2 users, in that they are cognitively more demanding and appear late in interlanguage development. Among these, lexical diversity and sophistication; morphological complexity, measured as the variety of verbal inflections; syntactic complexity, operationalized as mean length of clause and number of clauses per AS-Unit. Then, the frequency of these features will be assessed in the performance of 10 native speakers of Italian on five different oral tasks. This will allow us to establish which tasks imply a greater use of difficult linguistic features, and can thus be said to be potentially more difficult for L2 users.

This way of assessing task difficulty is objective, empirically founded and complementary to other approaches, and can contribute to a better characterization of a notion, task difficulty, playing a key role in SLA research and in task-based language teaching and assessment.

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## Comparing knowledge of Italian direct object clitics in native, L2, and heritage speakers: is early exposure advantageous?

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In this talk, I present results from a study comparing grammatical knowledge in native and advanced L2 and heritage speakers of Italian. SLA studies show that although knowledge of the syntactic placement of Italian direct object clitics is generally accurate, knowledge of their morphological form lags behind and differs significantly from native speakers (Santoro, 2007; Leonini, 2006). In production, for instance, L1 German L2 Italian speakers at intermediate and advanced levels of proficiency are known to either illicitly omit the clitic or redundantly repeat the full object:

### *Inappropriate Full Object NP*

(3) a: Che cosa fa la ragazza con la mela?

'What is the girl doing with the apple?'

b: ?Lei lava la mela

She washes the apple.NP.ACC

TARGET: La lava

### *Illicit Clitic Omission*

(4) a: Che cosa vuole fare la ragazza al ragazzo

'What does the girl want to do to the boy?'

b: \* vuole baciare

ØACC wants.MOD kiss.V

TARGET: La vuole baciare (Leonini, 2006)

In this context, little is known about heritage language speakers of Italian, intended here as adults raised as simultaneous bilinguals in another dominant language. I test two competing hypotheses, the weaker language as L1 (Montrul, 2015) versus L2 (Schlyter, 1993), which argue the grammar of heritage speakers resembles more that of natives or L2 speakers respectively. In this context, heritage language speakers have earlier exposure to target-like L2 input from a native-speaking parent. Adult heritage and L2 speakers with L1 Swedish and L2 Italian at the C1-C2 CEFR level, who were recruited in Sweden and compared to a control group of Italians recruited in Italy, completed a syntactic priming production experiment. 3SG/PL direct object clitics were tested in clitic-left dislocation structures of varying degree of complexity and distracted by fillers including structures with transitive or reflexive verbs. Participants were first primed by structure and immediately after asked to complete a sentence using prompts and a picture to aid completion. In the analysis, I focus on rate of priming, omission, and redundant NP use by the three groups and provide evidence as to whether the heritage speakers' exposure to target-like input from early ages confers advantages for ultimate attainment.

## Motion events in Italian L2: typological and psycholinguistic perspectives

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This study focuses on the expression of motion events in oral narratives produced by English and French university learners of Italian L2 (10 intermediate and 10 advanced per group) compared to native speakers (10 English, 10 French, 10 Italian). Data were collected by means of the “frog story” (Mayer, 1969).

Our analysis examines the way Italian L2 learners code motion events and the impact of typological properties during SLA (Thinking for Speaking Slobin, 1996), given the contrasts existing between the languages considered. According to Talmy (1985, 2000), English is a satellite-framed language (Manner/Cause in verb, Path in satellite(s)), whereas Italian and French are verb-framed languages (Path in verb, Manner/Cause by an adverbial or a gerundive constituent).

The study of the native data confirms the intertypological variation between S-languages and V-languages but it also stresses an intratypological variation between Italian and French: only Italian provides some satellite constructions (*andare via*, *saltare via*; cf. Simone, 1997).

As for L2 productions, the results show that learners, especially the intermediate ones, provide “a minimal response to the task” (*traitement prototypique* Watorek, 1996) by encoding mainly Path, the basic component of the task. This choice depends on the linguistic means at their disposal and is completely L1-independent. In other words, at the intermediate level there is no L1 thinking for speaking effect in L2, instead attested at the advanced level (von Stutterheim, 2003). With respect to our data, the L2 perspective seems to be adopted only by English learners, who used satellite constructions (*andare fuori*, *correre via*), which are target-appropriated. We suggest that the existence of similar structures in the source and target languages and the positive evidence in the input seem to favour conceptual transfer from L1 to L2.

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## Priming V2 in English: Limits on grammar competition

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Current approaches to L2 acquisition hold that L1 and L2 grammars compete for selection even at advanced L2 proficiency (e.g. Multiple Grammars: Amaral & Roeper, 2014; Sharwood-Smith & Truscott, 2014). In language production, the Shared Syntax model claims that grammatical representations combine across L1 and L2 (Hartsuiker & Bernolet, 2015). This study investigates if grammar competition extends to cases where the L1 grammar yields an ungrammatical output in L2 production.

In a cross-linguistic structural priming study, we tested 60 intermediate to advanced German learners of English. While German has general verb second (V2), English has SVO word order but has retained residual V2 properties in questions with auxiliaries and copula *be*. Previous research on L2 comprehension suggests that even advanced German learners of English overgeneralize residual V2 in English *wh*-questions to main verbs (e.g. Bauke, 2017; Rankin, 2014).

We probe whether learners also overgeneralize V2 in declarative contexts in production. In declaratives, V2 is highly restricted in English to (locative) inversion which is more frequent with copula *be* than main verbs.

In a production task, we first assess whether learners are aware of V2 properties in English declaratives. L2ers produced V2 only in locative inversion, yet not with sentence-initial temporal adverbials or instrumental PPs, and they produced more V2 with the copula than main verbs. Hence, learners have target knowledge of the scope and frequency of V2 in English declaratives.

In the priming task, participants listened to German declarative sentences that were either subject-initial or had fronted temporal adverbials (ADV-fronting). Subsequently, they repeated the German sentences to increase L1 co-activation. Then, they saw an uninflected verb (e.g. *stand*) and three nouns (e.g. *man*, *morning*, *garden*) presented in vertical order and they formed an English sentence using these lexical items. We coded whether the resulting sentence was subject-initial or ADV-initial and if it had SVO/V3 or V2 order. The experiment comprised a baseline, priming phase and a posttest. The learners showed L1 co-activation in significant short-term priming (priming phase) and long-term priming (from baseline to posttest) for ADV-fronting, yet not for V2. Further, there was no significant difference in V2 productions between copula *be* and main verbs.

These findings show a restricted scope of grammar competition in production even in a priming task that maximizes the chances of learners producing ungrammatical L1 options in the L2. Comparing our findings to previous L2 work, we suggest that grammar competition is limited to contexts in which general L1 options residually obtain in the L2, i.e. *wh*-movement; yet learners do not extend general L1 options into more restrictive (declarative) L2 contexts at advanced L2 proficiency levels. We also highlight differences of grammar competition in L2 comprehension vs L2 production.

## Unravelling the input: the effect of language exposure on the lexical development of Turkish-Dutch bilinguals and monolingual Dutch children

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In this paper, we examine the early lexical development in Dutch of Turkish-Dutch successive bilinguals in an immigrant context and compare it to the lexical development of monolingual Dutch children. Early childhood bilingualism appears in different forms in relation to the age of onset or amount of language exposure (De Houwer, 2007). Research findings have shown that bilingual children's language proficiency develops in line with the amount of exposure to the languages involved (Duursma et al. 2007). Most studies are based on children raised in One Parent-One Language (OPOL) homes as the languages in focus are easier to quantify (De Houwer, 2007). Studies on the early lexical development in early immigrant bilingualism, however, are rare and, to our knowledge, our study is the first to map the semantic distribution in the Dutch lexicon of very young (17-36 months) bilingual Turkish-Dutch children through the M-CDI.

In the study, we compare the composition of Turkish-Dutch successive bilinguals' early lexicon and Dutch monolinguals based on the lexical categories in the M-CDI. A total of 90 children were involved in the study, all living in the Dutch-speaking part of Belgium. They were divided into three groups according to Home Language: a Monolingual Dutch Group (MonoDu, N = 36), a One Parent-One Language Group (OPOL, N = 18) and a Turkish Parents Group (TUP, N = 36). As expected, results revealed significant differences between the groups in the overall size of the productive and receptive lexicon (Kruskal-Wallis,  $H=18.947$ ,  $df=2$ ,  $p < .05$ ): overall, the MonoDu Group had a larger lexicon ( $M=308$ ,  $s.d.=212$ ) than the OPOL Group ( $M=205$ ,  $s.d.=140$ ) and the TUP Group ( $M=104$ ,  $s.d.=122$ ), though there were important individual differences between children.

The results should not be interpreted as a deficit resulting from bilingualism, but they reveal that input quantity in the home context where two languages interact is extremely important in the composition of successive bilingual children's early lexicon, especially in immigrant families. In the analysis, we focus on the effect of Age of First Exposure to the community language, Dutch, and the semantic distribution in the productive and receptive lexicon of the children. In sum, the study shows that the size and composition of the lexicon of bilingual children from OPOL and TUP homes are considerably different from each other, showing the influence of input quantity and quality. The results will be discussed in light of the often reported underachievement of Turkish-Dutch successive bilinguals in a school context.

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## The impact of self-regulation in SLA: A systematic review of existant research

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The study of individual differences has historically borrowed heavily from constructs within educational psychology, however self-regulation is a relative newcomer to SLA research. In the past two decades, the field of self-regulation has received a boost in popularity within SLA due to calls for the construct to replace language learning strategies (e.g. Dörnyei, 2005; Tseng et al., 2006). This paper aims to evaluate how SLA research has responded to such calls, and to investigate the impact of self-regulation within SLA research in recent years, including an investigation of its impact on learning strategy research. This paper synthesises data from a recent systematic review of self-regulation and learner strategy research in order to reveal current trends in individual differences research, and to elucidate best research practices. After initially searching more than 1,000 research papers, 46 of the most field-aware studies were selected for data extraction. Results show self-regulation research is highly reliant on quantitative measures of data collection, but also reveal a number of context-situated qualitative methods which have produced valuable results. An in-depth review of the most relevant studies revealed a number of innovations that have considerably advanced research in recent years (e.g. Teng & Zhang, 2016). The review illustrates that the preponderance of extant research draws on individual, cognitive models of SRL, while ignoring other alternative conceptualisations. Results further show a somewhat muddled research approach to self-regulation, which has resulted in learning strategy research being re-branded as self-regulation, while maintaining a product-based focus. In drawing its conclusions, the paper showcases current state-of-the-art work in the field with an aim to inform future SLA research.

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## Morphosyntactic indicators for Specific Language Impairment in bilingual children

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A previous study on bilingual German children has identified case marking as a potential indicator for specific language impairment (SLI) ('Author of this study' 2015). However, results also showed that case marking could not disentangle effects of impairment from those of bilingualism in each case. Its potential power as an indicator depends on the specific case (accusative ≠ dative), the child's age and the age of onset of German.

Considering these results, a subsequent study shall contribute to the question of identification of SLI in bilingual children aged 7 by comparing different indicators that have been discussed in recent research literature: case marking (Ruigendijk 2015), subject-verb-agreement (SVA, de Jong 2015), and non-word repetition (NWR, Grimm & Hübner to appear). The COST Action IS0804 'Language Impairment in a Multilingual Society: Linguistic Patterns and the Road to Assessment' developed several LITMUS tasks (Language Impairment Testing in Multilingual Settings) on these markers. However, not all of them have been tested for German sufficiently yet (Ruigendijk 2015 for case marking; de Jong 2015 for SVA; Grimm & Hübner to appear for NWR).

The present pilot study investigates the performance of German bilingual children with typical language development (BiTD, N=6) and bilingual children with SLI (BiSLI, N=5) in a NWR, a case marking and an SVA task. The LITMUS tools are opposed to results of a standardized test in order to study their diagnostic accuracy in bilingual population. Besides a detailed parental questionnaire, we use the assessment tool Linguistische Sprachstandserhebung – Deutsch als Zweitsprache (LiSeDaZ, Schulz & Tracy 2011).

Preliminary results will be discussed with respect to previous research on these phenomena as possible indicators for SLI in bilinguals. Additionally, the acceptability of sensitivity levels for each of the LITMUS tasks will be debated.

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## The acquisition of motion event expressions in Uyghur-Chinese early sequential bilinguals: A view from syntactic packaging

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The present study draws on recent insights from how cross-linguistic differences in syntactic packaging of motion events impacts first and second language acquisition and extend this line of research to the context of Uyghur-Chinese early sequential bilinguals. Specifically, we examine whether and how four groups of bilingual children (AoO≈3) acquire patterns of syntactic packaging characteristic of their L1 (Uyghur) and L2 (Chinese) over time and how the acquisition process is modulated by cross-linguistic interactions. Four groups of bilingual children (4.5yr, 6.5yr, 8.5yr and 10.5yr) and two groups of adult monolinguals (Uyghur and Chinese respectively) participated in a cartoon narration task in which they were invited to describe a set of short video clips depicting voluntary and caused motion events.

Our analyses showed that the bilinguals are sensitive to the target pattern for both motion event types in their L1 and the L2 from the earliest stages of development. Their packaging patterns in the L1 remain largely target-like throughout development and there seems to be very little cross-linguistic interaction. As regards their L2, the bilinguals' syntactic packaging strategies seem to depend on the type of motion events involved and whether certain strategies are shared in their L1 and L2. In packaging voluntary motion events, the bilinguals consistently opt for the L2-specific pattern that is common to their L1 and L2, although their packaging strategy qualitatively differs from the target pattern, i.e. they encode less semantic components compared to the adults or indeed their monolingual peers. This we interpret as indication of cross-linguistic influence from L1 to L2. In terms of caused motion, the bilinguals systematically follow the L2 pattern of syntactic packaging. Interestingly, however, contrary to the case with voluntary motion, the bilinguals bypass the strategy shared both in their L1 and the L2 and instead opt for one that is uniquely L2-specific, thereby indicating an absence of cross-linguistic influence from L1 to L2. This can be partially explained by the fact that the packaging strategy shared by the L1 and the L2 in expressing caused motion requires a more complex syntactic construction, which calls for higher processing capacities in on-line production and longer time to develop during acquisition.

We discuss our findings in relation to the role of language-specific properties and universal cognitive factors in spatial language development. In addition, we explore the nature of cross-linguistic interaction in bilingual spatial language development through evaluating the following models: Bilingual Bootstrapping (Gawlitzek-Maiwald & Tracy, 1996), Convergence (Toribio, 2004; Engemann, 2012) and Ambiguity/Overlap (Serratrice, 2013). The more general implications of this study for motion event cognition and bilingualism will also be discussed.

## **L2 Processing Advantages of Multiword Sequences: Evidence from Eye-Tracking**

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Moving away from the traditional ‘words-and-rules’ approach [3], usage-based accounts of language acquisition and language processing have developed a growing interest in the role of multiword sequences (MWS), succinctly defined as variably-sized compositional frequently recurring strings of words 1. There is now an extensive body of evidence from experimental and corpus-based studies demonstrating that children and adults are sensitive to the statistics of MWS in their native language and rely on knowledge of such statistics to facilitate language processing and boost their acquisition [4] [5].

However, much less is known about whether and to what extent second language (L2) learners are able to develop sensitivities to the statistics of MWS resulting in processing advantages of such sequences. Moreover, the vast majority of previous L2 studies has focused on either non-compositional phrases, i.e. idioms or shorter compositional MWS 2. The aim of this study is to determine whether the processing advantage of longer compositional MWS found for adult native language speakers based on evidence from self-paced reading and sentence recall tasks [6] can be replicated in an eye-tracking study in a group of intermediate to advanced L2 learners.

Eye movements of thirty participants were recorded using both early and late measures (first fixation duration, first-pass reading time, total reading time and fixation count). L2 learners’ sensitivity to MWS frequency was evaluated using generalized linear mixed-effects regression with separate models fitted for each of the four dependent measures. Mixed-effects modeling revealed significantly faster processing of sentences containing MWS compared to sentences containing equivalent control items across all eye-tracking measures.

Taken together, these findings suggest that, in line with usage-based approaches, MWS are important building blocks in L2 processing and that similar mechanisms underlie both L1 and L2 processing.

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## Stimuli design: Frequency measure challenges and the perennial problem of L2 learner input

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Word frequency has a pervasive effect in language processing and production and thus is an important consideration in L2 research. There is significant evidence that high frequency words are processed and produced more quickly and accurately than low frequency words (e.g. Hopp, 2015) and therefore stimuli in online experimental tasks should be controlled for frequency when investigating other effects. However, how to best control word stimuli remains unclear.

There are two main considerations and our attempts to address these issues will be the focus of this paper:

1. What type of corpora should be used to measure word frequency? Which is most representative of L2 input?
2. How can word frequency be balanced cross-linguistically, i.e., between the L1 and the L2 or across different L1s?

First, there is no consensus as to the type of corpora (i.e., written or spoken) or the source of the measures (e.g., spontaneous speech vs. subtitles) that are most representative of L1 and L2 speakers' familiarity with given words.

Second, frequency presents a particularly complex issue in L2 research as word frequencies in the L1 affect responses in L2 tasks (e.g. Lemhöfer et al., 2008) and thus frequency in both languages should be taken into account. When frequency measures from more than one language are required, it is particularly difficult to ensure that corpora provide truly comparable measures across languages.

To address these issues we developed a procedure for controlling word frequency in online L2 processing tasks in the context of a study on grammatical gender assignment in L2 Spanish by L1 German, Norwegian, Dutch and Latvian speakers. This study represented not only the challenges mentioned above but was additionally complex due to the diverse language pairings of the participants.

In this procedure, stimuli were controlled for both written and oral frequency in the L1 and the L2 as well as L2 learners' familiarity with given words. Written frequency was measured using the TenTen web corpora (Jakubíček et al., 2013) and oral frequency by the OpenSubtitles2011 corpora (Tiedemann, 2016). The frequencies were log-transformed and the mean frequency of the stimuli in each condition was statistically analysed to ensure there were no significant differences. As a gauge of L2 input, the stimuli were also compared to a learner frequency dictionary (Davies, 2006). This approach raises the issue of words that are familiar to L2 learners - and are thus potentially good stimuli - but that do not appear in frequency dictionaries (e.g., furniture).

This procedure allows for complementary measures of word frequency in modern language to be used in controlling stimuli and can be implemented in many language pairings. In this paper we will also further discuss the advantages and disadvantages of different measures of L2 input (e.g., learner corpora, exam board specifications).

## The interplay between grammar beliefs and L2 proficiency at the syntax-discourse interface

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The present paper sheds some light on the interplay between the beliefs and perceptions L2 learners and native speakers have about the syntax-discourse interface in verb-second declaratives in German and their competence in this language area. The question whether L2 learners attain near native-like command in different language areas has received much attention over the past few years. While recent studies on second language acquisition have pointed to a systematic disjunction between formal accuracy and pragmatic-communicative proficiency, recent psycholinguistic research stresses the importance of learners' beliefs toward grammar as individual variable affecting language learning. In order to build bridges between the findings stemming from both research domains, our research addresses the question whether an inadequate use of syntactic patterns to encode information structure can be explained by beliefs and misconceptions about the target language system. To document the interplay between L2 proficiency at the syntax-discourse interface and metalinguistic awareness, a two-phased study were conducted. In the first step, a group of French-speaking learners of German (N=30) and a L1 comparison group (N=25) were asked to write an informative text on the basis of identical source material. The sentences were examined with regard to three dimensions: syntactic correctness, complement ordering variation and information structuring. In the second step, the results of the writing task were triangulated with the data gathered from (a) a questionnaire related to the participants' linguistic biography and learning experience and (b) an acceptability judgment task submitted to both the L2 test takers and the L1 control group. The results attested that advanced learners may master narrow syntax, but still fail to make a systematic use of the German clause flexibility to meet communicative-pragmatic requirements, being learners' misconceptions and beliefs about this language area a good predictor for lower performance compared to L1 text production.

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## The effect of language experience on L1 and L2 VOT perception of English and Spanish stops

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Voice onset time (VOT) is a crucial cue in the stop voicing distinction in both Spanish and English (Lisker and Abramson, 1964). However, the voicing contrast in these two languages is implemented differently. In initial position, Spanish contrasts voice lead (prevoiced stops) and short lag VOT (voiceless unaspirated stops), whereas English opposes short lag VOT (or possibly voice lead) and long lag VOT (aspirated stops). Thus, second or foreign language (L2) learners may find it difficult to acquire the L2 voicing contrast. Moreover, acquiring an L2 may have an effect on the categorization of L1 sounds. For instance, prolonged experience with the L2 system has been found to affect the production of L1 stops (Flege, 1987). This study investigates the effect of L2 experience on the perception of initial bilabial and velar stops in English and Spanish by English learners of Spanish differing in L2 experience and Spanish speakers living in the UK. This paper focuses on perception, in contrast to most previous works, which have only addressed production (e.g. Flege, 1987).

41 subjects living in the UK participated in the study: 10 monolingual speakers of English (ENMS), 10 English inexperienced learners of Spanish (ENINEXP), 12 English experienced learners of Spanish (ENEXP, with naturalistic experience), and 9 Spanish learners of English (SPEXP). They were asked to complete 4 forced-choice identification tasks – a /p/-/b/ test and a /k/-/g/ test in each language – which presented modified natural stimuli from a VOT continuum varying in ca. 5ms steps. Results show that SPEXP needed the shortest VOT to perceive voiceless stops, although the amount of VOT needed was longer than previously reported for Spanish monolinguals. Interestingly, ENEXP required the longest VOT to identify voiceless stops. In terms of category boundary, only SPEXP and ENEXP differed significantly in the perception of /k/-/g/ in both Spanish and English. More significant group differences emerged when comparing identification scores at specific steps in the continua. In particular, SPEXP tended to identify voiceless stops at earlier steps, and ENEXP tended to identify voiceless stops later. However, within-group analyses failed to reveal significant differences between performance in English and Spanish. Results point to the possible effect of L2 experience on both L1 and L2 perception in the case of the Spanish speakers in the UK (naturalistic setting), but so far do not indicate an effect of L2 experience either on L1 or L2 in the case of the English learners of Spanish in the UK.

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## **The use of second language pragmatic markers: The role of learner status in sociopragmatic development during study abroad**

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A period of residence in another country has been often seen as a means of enhancing a foreign language (FL). At the pragmatic level, Study Abroad (SA) research has shown that SA learners tend to be in a more advantageous position than their 'at home' counterparts. However, research has been mainly devoted to the investigation of speech acts in the second language (L2). Little attention has been given to L2 pragmatic markers (PMs) (Müller 2005), especially according to an SA perspective, despite their relevance to this learning context. Indeed, if folk-linguistic belief holds that SA constitutes a combination of instructed and naturalistic exposure, then the analysis raises key questions on SA potential to impact learners' use of PMs as well as the amount and type of language exposure (LE) while abroad. Previous research on PMs has demonstrated that their use by classroom learners is limited (Liao 2009) and their production in the L2 can be aided by native speaker (NS) contact (Sankoff et al 1997). Moreover, the degree of usage of PMs by L2 users has been gauged as a symptom of LE (Migge 2015).

This paper investigates L2 PMs by exploring the role of learner status and by comparing two experiences abroad. Indeed, the different learner status may have implications on the interactional opportunities while abroad and, consequently, on sociopragmatic development and language learning. The learners were 15 Italian Erasmus students and 15 Italian au pairs during a six-month residence in Ireland. Data were elicited through individual sociolinguistic interviews (Labov 1984). The analysis focuses on the use of 'like', 'you know' and 'well'. The frequencies and characteristics of use of these markers were analysed longitudinally to illuminate potential differences as the study progressed. Findings were subject to quantitative analysis and were compared with an NS corpus. The findings illuminate the benefits of SA experiences for the use of L2 PMs, but also point to a number of constraints such as linguistic factors influencing their use, social factors such as social participation, and interaction factors concerning language contact.

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## Initial transfer across domains in L3 Italian by Spanish Heritage Speakers

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Formal linguistic work on third language (L3) morphosyntax has focused on the dynamics of transfer source selection (L1, L2, or both). Reviewing available L3 morphosyntax studies, Puig-Mayenco et al. (2017) show that holistic underlying structural similarity between the L1/L2 and the target L3 is the most robust—but not exclusive—variable accounting for transfer, favoring the Typological Primacy Model (TPM) (Rothman, 2011, 2015). Although there is no question that structural similarity plays a deterministic role for L3 transfer selection, recent models question the TPM's argument of whole-grammar transfer (not property-by-property) at the L3 initial stages (Slabakova, 2017; Westergaard et al., 2017). Moreover, the vast majority of available data examine adult L3 acquisition in late L2 learners. Thus, it is not clear if and how L3 models of morphosyntactic transfer pertain to other types of bilinguals or extend to other domains, e.g. phonology. To address these issues, we examine heritage speaker (HS) bilinguals acquiring an L3 (Italian) in adulthood and examine two domains of grammar, syntax and phonology, soon after initial L3 exposure.

There is some evidence that HSs follow a similar path of L3 transfer to adult L2ers (Giancaspro et al., 2015) in morphosyntax. However, there are no true initial stages phonological data for HSs. Understanding transfer patterns across domains can help determine if transfer is wholesale or not from the outset. Specifically, we examine copula choice (essere vs stare), differential object marking (DOM), and voiced stop lenition. Crucially, all three phenomena pattern together in English and Italian—a single copula is used across conditions we examine, there is no DOM or lenition—and differently in Spanish and Italian, the more similar language pair.

Language: English - Spanish - Italian

Copula: to be - Ser or Estar - Essere

DOM: NO - YES - NO

Stop lenition: [-continuant] - [+continuant] - [-continuant]

Fifteen English-dominant Spanish HSs in a first-semester Italian class completed a delayed repetition task to examine stop production, and an acceptability judgment task (AJT) to examine copula choice and DOM in all three languages on separate testing days. Production task stimuli were CV.CV nonce words in a carrier phrase (30 critical items with intervocalic /bdg/, 15 fillers); critical segments were analyzed acoustically for continuancy. A 4-point scalar AJT (1=odd, 4=natural) consisted of 32 DOM items (8 items for each combination of [animate] and [specific], see Giancaspro et al., 2015), 32 copula items (all taking essere in Italian but corresponding, in equal numbers, to ser and estar in Spanish) and 20 fillers. Results indicate these that HSs produce and accept Spanish-like patterns in L3 Italian regardless of English dominance or the domain. We take this as cross-domain evidence of the role of global structural similarity in initial stages transfer and its completeness.

## Code-switching does not equal code-switching. An ERP-study on the influence of the switch point

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Studies using the ERP-technique have shed some light on the specific processes that take place when bilinguals process code-switching (CS) in sentences (for an overview cf. Kutas, Moreno, & Wicha 2009). Most studies identified two ERP components as relevant: an early negativity/N400, associated with lexical processing, and a late positivity, interpreted either as an index of difficulties with syntactic integration or as an index of processing unexpected stimuli. These studies investigated CS that were single-word insertions of nouns or other meaningful elements from one language into a sentence frame provided by another language. However, this is only one little piece of the picture, since CS can range from inserting single words to alternating languages for larger segments of discourse and can happen at various positions within the syntactic structure of a sentence.

In our paper, we will present the results of an ERP-study on German-Russian CS. Participants were 31 Russian second language learners of German. We compare CS that included only the lexical head Noun of a prepositional phrase (1a) with CS that included the whole PP consisting of the preposition, a demonstrative and a noun (1b) and where interested whether a) the CS at a Noun (1a) is processed differently from a CS at a Preposition (1b) and b) whether there is a difference between CS of one word (1a) and switching a whole constituent (1b). For the latter question, we compared processing of the switched noun in the condition where it was the switch point (1a), with when it was within a switched PP (1b).

1 a) Der Kapitän steuert das Schiff in diesen *port*.

The captain steers the ship into *this*-German *harbour*-Russian

b) Der Kapitän steuert das Schiff *in* *étot* *port*.

The captain steers the ship-German *into this* *harbour*-Russian

The two switch types differed in three out of four time windows: While CS on single nouns resulted in an N400 (250-550ms) and a late positivity over all sites, but strongest posteriorly (550-800ms and 800-1000ms), CS on PP, as measured on P, resulted in a broad early negativity (150-250ms), followed by a more frontal negativity in comparison to the single noun switch (250-550ms), and an anterior negativity with a posterior positivity (550-800ms). Only in the last time window (800-1000ms), CS on PP resulted in a broad positivity similar to CS on single nouns. Furthermore, processing of a N in a switched PP did not elicit an LPC, whereas it did when the switch was at the noun itself.

The clear differences between both types of CS indicate that different psycholinguistic processes take place, which we will discuss in our paper.

## Can L2 Learners Acquire New Morphological Distinctions? Evidence From Mandarin Speakers of English In Spoken and Written Production

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Adult second language speakers exhibit consistent variability when producing L2 inflectional morphology (Lardiere, 1998), especially those whose L1 does not use morphological marking. Many different sources for errors have been proposed, including absence of the relevant morphological representations (Hawkins & Chan, 1997), and L1 prosodic constraints (Goad, White & Steele, 2003). Articulation may also affect production accuracy according to Levelt's (1989) model. Our studies used a scene description task to investigate inflectional variability in spoken and written production modes amongst adult Mandarin learners of English, whose L1 does not mark tense using inflectional morphology.

In Experiment 1, 42 native Mandarin speakers of English and 36 native English speakers produced spoken scene descriptions. Temporal context (Present Habitual, Past) was manipulated through visual cues to elicit temporal adverbials (Every day, Yesterday). Subject number (singular, plural) was used with specific transitive verbs to provide obligatory contexts for inflectional production (3SG -s (3rd person singular -s) and past tense -ed).

In Experiment 2, 48 native Mandarin speakers of English and 45 English speakers carried out the same task to produce written descriptions.

Results showed Mandarin native speakers produced target inflection markings under obligatory contexts in both spoken and written production. Crucially, participants' patterns of error did not change across production modalities. 3SG -s was most likely to be omitted in obligatory contexts in both spoken and written production.

The fact that L2 speakers used temporal cues to produce target inflectional morphology under obligatory contexts argues against absence of relevant representations, whilst the fact that spoken production did not show significantly greater errors argues against an articulatory explanation. The featurally more complex inflection 3SG -s encoding person, number and tense was especially prone to omissions. This indicates a negative relationship between production accuracy and inflectional processing load, suggesting a morphological processing explanation.

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## Anaphora resolution in Late and Simultaneous bilinguals of Italian and Turkish: a case for processing cost?

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Research found that late bilinguals in an immigrant setting are prone to undergo attrition in their native language in structures at the syntax-discourse interface; this aspect is also appeared to be problematic for 2L1 young bilinguals. Recently, Sorace (2016) has proposed that the interference may be due to the cognitive cost of processing two languages and formulated the hypothesis that this cost may be different in the late and simultaneous bilinguals. The present study is built on previous research that established cross-linguistic interferences in bilinguals speaking languages with similar parametric aspects (e.g.: Serratrice et al., 2012). It is assumed that Italian and Turkish do not differ with respect to the antecedent biases of null and overt subject pronouns in the contexts under investigation, except for anaphoric pronoun “kendi” that do not have an Italian equivalent, when at the 3rd person singular or plural “kendisi” it can be used to express anaphoric references among the subject of the embedded sentence and the one in the matrix sentence. The study reports data from a 40 Item Acceptability Judgment Task in Italian on the interpretation of backward anaphora in complex sentences by thirteen L1 Italian, L2 Turkish late bilinguals (35-60 years) and six 2L1 (age 11-13 years), matched with thirteen (25-60 years) Italian monolinguals as a control group. The focus was on the resolution of an overt/null subject in intrasentential anaphora with three conditions: general sentences, quantifier sentences, and embedded subjunctive sentences. The Kruskal-Wallis test among the three groups shows significant differences in the interpretation of the null subject with embedded subjunctive sentence ( $\chi^2(2, N=32) = 7.231, p < .03$ ), and the Mann-Whitney U test for pairwise comparison reveals that there is a significant difference between late bilinguals and simultaneous bilinguals ( $z = -2.622, p < .0,1$ ) and between late bilinguals and monolinguals ( $z = -1.831, p < .0,7$ ) but not between 2L1 and monolinguals. These findings are very interesting because they seem to contradict earlier studies wherein it was found that monolinguals and bilinguals differ in the interpretation of the overt pronoun; however, the findings are in line with those proposed by Sorace (2016) about the different cost of processing two languages in the late and simultaneous bilinguals and those that indicated that the quality of input and literacy in the two languages in simultaneous bilinguals may account for monolingual-like linguistic behavior.

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## The perception of English phonetic contrasts among Dutch pupils attending early-English or regular education, and Dutch-English bilingual children

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An increasing number of primary schools in Europe offers early-English education, often because of the premise that the earlier children start learning a new language, the more proficient they will become in that language. This is especially believed to be true when acquiring speech sounds of a foreign language. In this study, we investigated 1) whether Dutch children who were enrolled in an early-English educational programme were indeed better able to perceive differences in English phonetic contrasts than their peers attending regular education, and 2) if early-English pupils' performance was comparable to that of early Dutch-English bilingual children. Participants attended early-English schools in which English lessons start from the moment that children enter primary school at the age of four, or regular education in which English lessons start when pupils are ten years old, or were Dutch-English bilingual children who were being raised bilingually at home. Pupils had just started primary school (i.e., 4-5 year-olds), were halfway through their primary-school career (8-10 year-olds), or were at the end of primary school (11-12 year-olds). We expected early-English pupils to outperform control-school pupils on a contrast that was of intermediate difficulty (/g/-/k/), but not on contrasts that are known to be more difficult for Dutch native speakers (/θ/-/f/ and /æ/-/ε/). We furthermore predicted bilingual children to outperform the two other groups on all contrasts. In an XAB task children were presented with non-word minimal pairs. Four ANOVAs were done with Age Group and Bilingual Category as fixed factors and d' on each contrast as dependent factor. As predicted children attending early-English education performed better than the control group on the /g/-/k/ contrast, but not as well as bilingual children. Confirming our prediction, on the /θ/-/f/ contrast early-English and control pupils' performance was not significantly different, but the bilingual group outperformed the two other groups. Also as predicted, on the /æ/-/ε/ contrast early-English and control pupils did not differ from each other, whereas the bilinguals showed better performance than the two other groups, who were at chance level. This study shows that the assumption of 'earlier is better' is only partially true: Starting English education at a young age was found to be beneficial for learning a non-native contrast that is not exceedingly challenging, but for learning two more difficult contrasts, an earlier starting age and/or more input in English may be needed.

## A longitudinal investigation into the relationship between proficiency, Foreign Language Enjoyment and Anxiety among Japanese EFL college students

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High levels of Foreign Language Enjoyment (FLE) and low levels of Anxiety (FLCA) have been linked with stronger FL proficiency (Dewaele & Alfawzan, to appear). More advanced FL learners have been found to suffer gradually less from FLCA and report higher levels of FLE during their classes (Dewaele & MacIntyre, 2014). A study by Dewaele and Inada (2018) on the same database as the present study showed that first language (L1) use lowered FLCA without boosting FLE. However, exclusive FL use heightened FLE without affecting FLCA, confirming earlier research (Dewaele et al., 2017). The current study adopts a longitudinal perspective to investigate the relationship between FLE, FLCA, and English proficiency levels of 97 Japanese EFL freshmen in a Japanese university. Thirty-one students had English-only instruction while 66 students also had some Japanese input from the same teacher. Three groups, Basic, Intermediate, and Advanced were created on the basis of TOEIC scores. Students filled out the FLE/FLCA questionnaire (Dewaele et al., 2017) at the start (time 1) and at the end of the spring semester (time 2) in 2017. Friedman tests showed a significant change over time for both FLE and FLCA. All six groups reported higher FLE and lower FLCA at the end of the course. All levels of students with English-only instruction had higher FLE than those with Japanese. However, basic-level students in the English-only group had a smaller drop in FLCA and had the highest level of FLE and FLCA at time 2. The results support and expand past research, showing the dynamic nature of FLE and FLCA and its relationship with FL proficiency. We will discuss the pedagogical implications.

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## Italian-German bilinguals: The effects of HL use on the majority and minority language

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This study investigates perceived global accent in the two early-acquired languages of 22 adult-aged early bilinguals with Italian as the heritage language (HL) and German as the majority language (ML). In particular, we test the relative role of 'AoO in German' (0-6 years) and 'Italian use' for perceived nativeness in Italian and German. Much attention has been given to the effect of AoO on the attainment of nativelike speech. For accent in the ML, studies tend to suggest 'the earlier, the better', showing that speakers who acquire the language from birth (2L1ers) are more likely to be indistinguishable from monolinguals than speakers with an AoO from 4 or 5 (eL2ers) (Flege, Munro, & Mackey, 1995; Abrahamsson & Hyltenstam, 2009). In contrast, a later AoO in the ML may be assumed to have a positive effect on the development of phonology in the HL, since this allows the HL to develop independently and without pressure from another phonological system during the first few years of life. That said, what appears to be a benefit of a later AoO in the ML could arguably be explained by the amount of input received in the HL. For example, Kupisch et al. (forthcoming) show that nativelike accent of 21 German-dominant early bilinguals in HL Turkish was unrelated to AoO in German, but strongly related to Turkish use.

There exist very few studies that have looked at perceived foreign accent in both HSs' early-acquired languages (an exception is Kupisch et al. 2014). We thus carried out two separate accent rating experiments (one each for German and Italian) that included 10-second speech samples from the HSs as well as from 20 monolingual and L2 controls. These were rated by 30 L1 German and 47 L1 Italian monolinguals as foreign accented ('yes' or 'no') and for degree of certainty ('certain', 'semi-certain', 'uncertain'). To assess the role of HL input, we calculated an Italian Use Score (IUS) for each bilingual based on 18 input and use-related variables. AoO in German was used as a continuous predictor in a regression model.

Our results show that almost all speakers were perceived as indistinguishable from monolingual controls in German, while their accent in HL Italian was perceived somewhere between that of monolingual and L2 controls. Unlike in previous studies, AoO in the ML was found to have no consequences for accent in the ML itself. However, there was a significant positive effect of a later AoO in German on nativeness in Italian, which could be interpreted as evidence for the claim that a later AoO in the ML benefits phonological development in the HL. An even stronger effect was found between 'Italian use' and nativeness in Italian. Thus, perceived nativeness in the HL is better explained by HL use than by AoO in the ML, and language use has a stronger impact than AoO, at least in early bilinguals. Our results lend weight to earlier claims that AoO is often confounded with other variables (e.g., Flege et al. 1999).

## The role of working memory in young second language learners' written performances

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A large number of second language (L2) learners are young learners (YLS) and this age group has recently become the focus of growing interest in the field of second language acquisition. In designing pedagogical and assessment tasks, special attention needs to be paid to the cognitive capacity and affective characteristics of YLS (Bailey, 2017). Individual differences in working memory (WM) functions are particularly relevant for YLS whose attention regulation mechanisms are still developing (Jarvis & Gathercole, 2003). Tasks can vary in their demands on attentional resources and tasks that are taxing on the storage and processing functions of WM and attentional resources might disadvantage children with lower levels of storage, processing and attention regulating abilities.

Our research explores what role of WM functions, grade level and task type play in the L2 writing performances of young English language learners. It also examines whether WM functions play a differential role in L2 writing performances depending on grade level and task type. Ninety-four YLS in Hungary, aged between 11 and 14 years, completed the writing section of the computer-administered TOEFL Junior™ Comprehensive test battery. The test comprised four task types: two editing tasks, one email writing task, an opinion essay and a listen-write task. Trained raters scored the YLS' performances on these writing tasks. Participants were also administered three age-appropriate WM tasks that assessed their phonological short-term memory and the processing and attention regulation functions of WM. Cumulative Link Mixed Models were used to examine the relationships between the learners' writing scores and WM functions and potential changes in this relationship depending on task type and grade level.

The results showed that participants scored high on the email writing and integrated Listen-Write tasks. They gained significantly lower scores on the academic version of an editing task, which required the detection of errors in an academic text, than on other types of tasks. WM functions had no significant effect on L2 writing scores, except for the academic editing task. The findings also revealed that the performance of YLS with high WM abilities was less influenced by task-type effects. Irrespective of WM functions, learners in Grade 7 outperformed those in Grade 6 on the Listen-Write task. The presentation discusses the theoretical, pedagogical and assessment implications of the results.

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## The Organisation of the L2 Mental Lexicon: Morphological Structure versus Surface Form Effects

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Derived words such as *surfer* can potentially be processed based on their morphological structure (*surf-er*), leading to activation of the base word (*surf*) in the mental lexicon. Previous priming research showed such activation effects, suggesting decomposition based on morphological structure – both in L1 and adult L2 processing (e.g., Diependaele, Duñabeitia, Morris & Keuleers, 2011). However, recent studies (e.g., Heyer & Clahsen, 2015; Li, Taft & Xu, 2017) also reported priming for purely orthographically related prime-target pairs (e.g., *surface* - *surf*) in adult L2 (but not L1) groups, thus questioning the morphological nature of priming effects for derived forms in the L2. The present study investigates (1) if L2 priming effects for derived forms can be explained by surface form overlap alone and (2) whether orthographic effects are located on the lexical level (resulting from co-activation of entries sharing letters: *surface* → *surfer*, *surf*, *surreal* etc.) or on the surface form level (i.e., individual letters activate all entries containing these letters, with delayed de-activation of non-target entries in L2 compared to L1).

This masked priming study uses real word and nonword primes to tease apart lexical and surface form effects. Forty L1 English and 40 German L2 English speakers saw verb targets (e.g., *surf*) preceded by one of five prime types: (1) derived words with *-er* (e.g., *surfer*), (2) derived nonwords with *-al* (e.g. *surfal*), (3) orthographically related words (e.g., *surface*), (4) orthographically related nonwords (e.g., *surfard*) and (5) unrelated words (e.g., *therapy*) at an SOA of 50 milliseconds.

Preliminary linear mixed-effects analyses indicate an interaction between Group and Prime Type, reflecting that both groups showed priming for derived words (L2:  $t=3.12$ ; L1:  $t=2.54$ ), derived nonwords (L2:  $t=1.89$ ; L1:  $t=2.14$ ) as well as orthographic nonwords (L2:  $t=2.2$ ; L1:  $t=2.33$ ) but differed with respect to priming for orthographic words, with only the L2ers recognising targets faster after word primes that shared initial letters with the target (L2:  $t=2.7$  vs. L1:  $t=0.58$ ). Importantly, L2 (yet not L1) priming was independent of the prime being an existing word.

These results rule out a lexical source for these effects and thus add critical evidence for the orthographic (rather than morphological) nature of priming for derived forms in L2 adults, indicating that morphological structure plays a subordinate role in the structure of the adult L2 mental lexicon. With late L2 acquisition often concentrating on the visual domain, letters appear to be the crucial factor determining the organisation of the L2 mental lexicon and the word recognition process instead.

## Phonological awareness in young multilinguals: An L2/L3 accent mimicry study

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In the field of third language (L3) acquisition, metalinguistic awareness is posited to be a fundamental component of multilingual competence and a key factor facilitating the acquisition of additional languages. In the realm of L3 phonological acquisition, little is known about this type of competence, in young multilinguals in particular (see Kopeckova forthcoming). Also, it remains an unresolved question how to best measure (meta)phonological awareness across multiple languages rather than within a language (e.g. Mora et al. 2014, Wrembel 2015). The present paper aims to address this gap by exploring (meta)phonological awareness in 44 multilinguals (aged 12-13), using an accent mimicry task that tapped both tacit and explicit awareness of the phonology of their additional languages.

The participants included two subgroups with L1 Polish, L2 English, L3 German and L1 German, L2 English, L3 Polish, who had comparable levels and types of instructed learning experience. In this mirror-design study, the participants told a picture story in their L1 while mimicking half of the story in an accent of the L2, and the other half in an accent of the L3, followed by retrospective comments on their performance. Qualitative and quantitative analyses of the task recordings were performed by two independent raters, who calculated a raw score of mimicked phonetic/phonological features for L2 and L3 separately and categorised the reflective comments.

The results show a highly variable phonological awareness in the young multilinguals about both segmental and suprasegmental features of their non-native languages. Nearly all of the L1 Polish multilinguals changed their pronunciation imitating an L2 or L3 accent. Of the L1 German children, about half did not alter any phonological features, while the others changed between one and four. Moreover, the L1 Polish speakers offered a greater number and range of metaphonological comments than their L1 German counterparts, who primarily commented on the different rhotic sounds in their languages. Thus only for some multilinguals, phonological awareness appears to translate into their ability to manipulate the sounds of their languages, both those learnt for years and languages just only recently encountered. The findings will be discussed from methodological and pedagogical perspectives as well as compared against the participants' performance on other L2/L3 perception and production tasks, as part of a large-scale longitudinal project.

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## Migrant Students' Reading Comprehension in their First Year of Regular Classes

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Recent migration due to refugee movements and internal migration within the EU have led to a strong increase in the numbers of students with little or no knowledge of the school and community language in many nations of Europe. In Germany, where education is decentralized, different concepts exist to integrate migrant schoolchildren into the education system. In the city states of Bremen and Hamburg, newly arrived migrant students (*Seiteneinsteiger*) are fully integrated into regular classes within one year. During this first year, they attend separate language classes for approximately 20 hours per week. These are based on different educational integration models (Massumi et al. 2015: 48f.), but hold the same objective of enabling students to reach the B1 level in reading and listening comprehension. This is problematic for three main reasons. First, this level is arbitrary; no empirical evidence exists which confirms that B1 suffices to master the expository and narrative texts regular classes demand. Second, the attainment of B1 is not a prerequisite to attend regular classes, and students do not have to pass language exams at any point. Finally, the continued development of reading skills after complete transition remains unclear. This final desideratum motivated the present study.

We report on a 10-month study in which subskills of migrant students' L2 reading competence were compared with cohort performance ( $n = 568$ ) in Grades 7 and 8. Due to the expected high level of attrition amongst focal students (participation at school year start:  $n = 52$ ; at finish:  $n = 41$ ), data was collected at 15 schools in Bremen and Hamburg. In addition to comprehensive questionnaires on individual educational and language background, students completed standardized reading tests with two measures of reading skills in September and June as well as non-standardized tests from Biology and German in December and March. Results were analysed with repeated-measure ANOVAs. An accompanying qualitative study was developed to track individual development of six students literate in Arabic. We discuss the development of L2 reading skills throughout the first year of complete integration on all quantitative measures and illustrate these results with data from the qualitative study.

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## Microvariation in Multilingual Situations: Unlearning V2 in L1 Norwegian L2 English acquisition

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Work on L1A has shown that children are sensitive to fine distinctions in syntax and information structure from early on, indicating that they are not learning by setting macro-parameters, which would predict massive overgeneralization in cases where there is (micro-)variation in the input. Instead they are conservative learners, generally not producing overt elements or movement operations unless there is clear evidence for this in the input, thus minimizing the need for unlearning (e.g. Snyder 2007). Such findings have led to the development of the Micro-cue Model of L1A (Westergaard 2009, 2014), which has also been used to account for gradual (step-by-step) development in diachronic data.

In this talk, I ask the question how this model fares with respect to multilingual situations, more specifically L2 acquisition. Drawing on evidence from the acquisition of word order, I argue that, although L2 learners (unlike L1 learners) are typically not conservative, they are (like L1 learners) sensitive to fine linguistic distinctions, in two ways: A) transfer/cross-linguistic influence may take place in small steps, i.e. children are not transferring the setting of a (macro-)parameter, and B) non-facilitative influence may be overcome gradually; thus, L2A does not involve resetting (macro-)parameters.

In order to argue for A), I re-evaluate data from L1 Norwegian learners of L2 English from Westergaard (2003), (n=39, age 7-9). In the learners' L1 there is a distinction between long and short wh-items in questions, in that phrasal ones require V2, while short ones allow either V2 or non-V2, illustrated for English in (1)-(2):

- (1) *Where the ball is?* (grammatical in the L1)
- (2) *What color the ball is?* (ungrammatical in the L1)

The results show that the learners find English sentences such as (1) significantly more acceptable than (2). Thus, the V2 micro-variation from L1 Norwegian is carried over to L2 English at an early stage (i.e. there is no transfer of a parameter setting).

In order to argue for B), an Acceptability Judgement Task was carried out, testing two word order phenomena that have been considered to be part of the V2 parameter and that have been argued to be transferred from Norwegian into English at an early stage, (3)-(4).

- (3) Last night {*opened*} the girl {*opened*} a present from her dad (XP-S-V)
- (4) The girl {*played*} always {*played*} soccer with her brother (S-Adv-V)

The experiment also included two morphological phenomena (not discussed here) and a subset of the Standard Oxford Proficiency test. The participants were three age groups of L1 Norwegian L2 English learners: 9-10 (n=15), 13-14 (n=27), 15-16 (n=25). The results show that acceptance of the transferred word order decreases with age and proficiency, but the trajectories for the two constructions are significantly different, the S-Adv-V condition lagging behind (p=.036). The results are discussed in terms of the Micro-cue Model and findings from other populations.

## The effects of written corrective feedback and working memory on the development of linguistic knowledge

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During the past two decades, form-focused Written Corrective Feedback (WCF) in second language writing has been highly debated and extensively studied. So far, empirical evidence has demonstrated that WCF can enhance grammatical accuracy in new pieces of writing. This could be indicative of L2 acquisition or, at least, of the notion that WCF can trigger cognitive processes which are required for L2 acquisition to take place. This interpretation of findings is in alignment with what Manchon (2011) has called the “language learning potential of writing”. However, a review of the literature reveals that the effect of individual differences in cognitive abilities such as working memory (WM) on the extent to which learners benefit from different types of WCF has yet to be explored. The importance of WM for L2 development has been documented in the SLA literature. It is, therefore, plausible to assume that individual differences in WM could also mediate the effects of WCF on L2 development. This study looked into the development of learners’ knowledge of two grammatical structures (English articles and a conditional construction) whilst taking into account learners’ individual differences in working memory capacity. 87 upper intermediate EFL learners participated in this research. All participants took a battery of tests prior to the investigation: (a) three tests of working memory capacity, i.e. reading span test and operation span test; and (b) a series of tests for measuring learners’ implicit and explicit knowledge of two grammatical features—these included oral imitation test and timed grammaticality judgement test for implicit knowledge and untimed grammaticality judgement test and metalinguistic knowledge test for explicit knowledge. Participants were then assigned to three groups (n=29). In the direct WCF group, participants received the correct form of their errors and in the indirect WCF group they were only provided with an indication of where the errors were, and were required to correct them. Participants in the control group did not receive any treatment. Both experimental groups were asked to revise the text and write a new one a week after. In the same session all participants took new versions of implicit and explicit tests and three weeks after the treatment they too another series of tests as delayed posttest. The results of the preliminary analysis revealed that overall both experimental groups outperformed the control group in terms of explicit knowledge of both constructions and across both post- and delayed post-tests ( $p < 0.05$ ). Also, the results showed that participants’ WM scores significantly correlated with the extent to which they benefited from indirect feedback ( $r = .42$ ). However, no statistically significant relationship was found for direct WCF ( $r = .14$ ).

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## Saliency revisited: What helps absolute beginners learn L2/L3 inflectional morphology?

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Extensive research on the beginning stages of language learning by untutored learners reveals little to no productive morphology (Perdue 1993). Other research, even with tutored learners, has found similar results (Bardovi-Harlig 1992; Larsen-Freeman 2010; VanPatten 2004). To what extent is this lack of productive morphology due to the type of linguistic input learners receive? A complete control of the learner's linguistic environment from the moment of first exposure to the foreign language can contribute to answering this question. This paper reports on such a study, in which Polish (a highly inflected language) is the target language.

Groups of 15-20 native speakers of French, Italian, English, German and Dutch took part in a 10-day Polish course, a total of 14 hours of oral Polish input from a native-speaking instructor. None of the participants had previously been exposed to Polish or another Slavic language, and the morphologically-rich input included no explicit instruction about nominal morphology. The input properties, frequency and transparency (cognates), were carefully controlled and documented in order to compare learner performance with properties of the input.

This paper presents cross-linguistic results of an oral production task (question-answer), which tests learners' ability to use markers of case and gender in Polish. The task was administered at two time intervals, after 4.5 hours and again after 10.5 hours of Polish instruction. Production data were analyzed for accuracy relative to frequency and transparency to see how learners integrated new forms into their individual learner varieties and what helped them do this. Results shed light on the complex role of saliency (cf. Ellis 2006; Slobin 1985), in addition to the role of the L1, in the early stages of the acquisition of nominal morphology.

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## Effects of bilingualism in phonological awareness and reading decoding development in Greek-English speaking children

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**Background:** Bialystok, Luk & Kwan (2005) have provided two reasons to explain why literacy may proceed differently for bilingual and monolingual children. Firstly, bilingual children may develop prerequisite skills required for literacy differently from monolingual ones. Secondly, bilingual children may transfer the skills acquired for reading in one language to reading in the other. However, it is unclear if learning to read in one language has an advantage on literacy development in another language across the school years and whether this advantage differs across different domains of literacy.

**Aims:** This study investigated the effects of bilingualism in language and literacy skills of primary school children in the UK with Greek as a minority and English as a majority language compared to monolingual English children in Year 1 and 3. The research question addresses whether or not bilingual children will have better literacy skills than monolingual children, and whether these skills could be transferred from one language to the other. We hypothesised that bilingual children will have better literacy skills in English than monolingual children because learning to read a transparent orthography (Greek) may enhance their reading skills in a language with opaque orthography (English).

**Methodology:** 40 Greek-English bilingual children (Year1=20;Year3=20) and 40 English speaking children (Year1=20;Year3=20) participated in baseline tasks and tasks measuring phonological awareness (blending and elision) and reading decoding tasks (real-words and pseudo-words) in English. Parents completed the LITMUS-PABIQ questionnaire (Tuller,2015) to obtain language history/use data.

**Results:** Two-way ANOVAs comparing bilingual and monolingual children's performance in Year 1 vs. 3 in each task indicated that bilinguals scored better than monolinguals across tasks (all p-values<0.001) and children in Year 3 scored better than in Year 1 across tasks (all p-values<0.001). There was a significant interaction between Group and School Year only in elision and pseudo-word reading (all p-values<0.01). Post hoc tests using Bonferroni correction revealed larger effect sizes in the difference between Year 1 and 3 in monolinguals than bilinguals and also larger effects sizes in the difference between monolinguals than bilinguals in Year 1 than in Year 3. No such asymmetries were present for blending and real-word reading.

**Conclusion:** The bilingual group performed better on phonological awareness and reading decoding tasks than the monolingual group. This suggests cross-language transfer from reading instruction and/or learning to read in a language with transparent orthography (Greek) alongside a language with opaque orthography. The results are in line with previous research showing cross-language transfer (Geva,2000) and with studies showing a facilitation in the development of these skills in bilingual children, specifically in the early school grades (Bialystok et al.,2005).

## **The effects of teaching phonics and reading strategies in L2 French: an experimental trial in UK secondary schools**

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Research reviews suggest that explicit instruction in L2 reading strategies can improve reading outcomes (Plonsky, 2011) and aspects of self-regulation such as self-efficacy (Ardasheva et al., 2017), albeit with some variation according to context. Phonological decoding has also been shown to play an important role in L2 reading comprehension (Nassaji, 2014; Jeon & Yamashita, 2014), though the effectiveness of explicit L2 decoding instruction (including phonics) is under-researched. The current study compared the effects of phonics and reading strategy instruction amongst beginner learners of L2 French in UK secondary schools (a context facing persistent problems of low L2 motivation and achievement). It built on a previous study in the same context (Macaro & Erler, 2008), which found positive effects for a combined reading strategy and phonics intervention. A cluster randomized control trial was conducted with a sample of 900 learners in 36 schools. Participants were explicitly taught either (a) phonics, (b) strategies or (c) neither phonics nor strategies (comparison group). All three groups also read 8 'pedagogic texts', designed to exemplify particular French grapheme-phoneme correspondences and facilitate the use of particular strategies. The teaching took 20 minutes per week over 16 weeks. Fidelity to condition was high; attrition was low. Participants completed pre-, post- and delayed post-test measures of reading comprehension, phonological decoding, strategy use, self-efficacy and vocabulary knowledge (amongst other variables). Preliminary analyses of pre- and post-tests indicate greater increases (a) for the phonics group over the other two groups in reading comprehension and phonological decoding; (b) for the phonics group over the control group in vocabulary knowledge; (c) for the strategy group over the other two groups in 'text-engaged' strategy use and self-efficacy for reading. However, effect sizes were small, and when a multi-level analysis was used to account for the co-variation within clusters (schools), these between-group differences were non-significant. Implications for pedagogy, SLA theory and methods will be discussed.

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## Feature Unlearning in English Speakers' L2 Acquisition of Chinese Imperfective Markers

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Formal linguistic approaches to SLA research have focused mainly on the acquisition of features bundled onto functional categories (Slabakova, 2008; Lardiere, 2008, 2009; Montrul & Yoon, 2009). When the feature set of an L1 morpheme is a superset of that of its corresponding morpheme in the L2, learners are expected to unlearn or discard certain 'unwanted' features to converge on the target grammar, which is dubbed a 'feature unlearning' process. Feature unlearning is predicted to be difficult as it is hard to notice the absence of something and thus infer impossibility of a given interpretation (Montrul & Yoon, 2009). Furthermore, a feature to be unlearned may fall into a dormant status due to long-term absence of informative evidence in the L2 input (Yuan, 2014).

Imperfective markers in English and Chinese do not have the same feature configurations. English the auxiliary *be* and the morpheme *-ing* have at least two aspectual features: [+progressive] (*he is putting on a new coat*) and [+resultative] (*he is wearing a new coat*). On the other hand, in Chinese, imperfective meanings are normally distinguished by different markers: the preverbal marker *zai* (progressive) and the post-verbal suffix *-zhe* (resultative). Chinese has a special verb type (so-called Mixed Telic-Statice verbs) that encodes either the process of a telic action or the state resulting from that process, such as *chuan* 'put on / wear'. With the progressive marker *zai* the verb *chuan* corresponds to English *put on*, whereas with the resultative *-zhe*, *chuan* corresponds to *wear*.

Following the Full Transfer model (Schwartz & Sprouse, 1996), the present study employed an Acceptability Judgement Task (AJT) and a Sentence-Picture Matching task (SPMT) to investigate, when *zai* and *-zhe* are associated with the same MTS verb (e.g., *chuan* 'put on/wear'), if English speakers are able to unlearn the [+resultative] feature of *zai* transferred from their L1 English and interpret it as progressive, and to attach the [+resultative] feature to *-zhe*. Sixty-five English-speaking learners at three different Chinese proficiency levels and 25 Chinese native speakers participated in the experiment.

The present study has found that although English native speakers accepted the syntactic forms of Chinese imperfective sentences with *zai* or *-zhe* from the beginner level in the AJT, they still had difficulty in unlearning the [+resultative] feature of *zai* at the advanced level and thus were unable to differentiate the two imperfective markers in terms of their aspectual meanings in the SPMT. The findings confirm the Dormant Feature Hypothesis (Yuan, 2014) that a certain feature can become dormant in L2 lexicon if there is no confirming or disconfirming evidence in the L2 input for necessary revisions or reconfigurations in the L2 lexicon, and support Montrul and Yoon's (2009) prediction that feature unlearning is in general difficult for L2 learners.

## How Much Verbatim Information Do L2 Readers Retain Compared to L1 Readers?

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Research on memory for gist vs. surface linguistic information seems to converge on the assumption that linguistic information is not retained verbatim, but is converted to conceptual form which is then stored in long term memory (Sachs, 1967, Just & Carpenter 1992, Rummer et al., 2013). At the same time, usage-based theories of grammar acquisition assume that grammatical knowledge is derived from a database of chunks that are stored verbatim in memory (Bybee 1985; Ellis 1996; Goldberg 2006; Langacker 1988; Tomasello 2003). Yet how can a database of memorized verbatim sequences emerge, if verbatim linguistic information is not retained?

The study explored whether L2 German learners (B2-C1 level, Slavic/Romance L1) overrepresent verbatim information in the mental text models they construct during reading compared to L1 German natives. We hypothesized that non-proficient readers are more likely to store verbatim information, since they might either need it more for acquisition purposes and/or compensate with it for e.g. more shallow representations without hierarchical structure organization (cf. Shallow Structure Hypothesis, SSH, Clahsen & Felser 2006, 2017).

Both groups of participants read six short texts (300-400 words) twice while their eye movements were tracked. There were eight ROIs in each text. Four ROIs involved nouns (lexical condition, LC) and the other four ROIs involved two sentences in active and two in passive (syntactic condition, SC). The second version (V2) of each text differed from the first version (V1) in that two ROIs always stayed the same and two were changed. In the LC, the noun was exchanged for its near-synonym, in SC active was transformed into passive and vice versa. The rationale of the design was that if readers represent verbatim surface information in their mental text model, they should notice the changes in V2 and respond to them by longer fixation times. Thus, the critical comparisons were between fixation times at the same vs. changed ROI in LC and SC during second reading, e.g. total fixation duration at the word “city” after “city” in V1, or after “town” in V1. After V1 was read, participants performed several mathematical tasks. After V2, they answered comprehension questions which justified the usefulness of the second reading (no difference between the groups).

The results revealed that L2 learners (20) fixated the changed ROIs significantly longer at both LC and SC, while there was only a small numerical difference between the critical conditions in L1 (24). They support the initial hypothesis that less proficient readers retain more details regarding linguistic surface information (recently also Gurevich, Johnson & Goldberg, 2010; Sampaio & Konopka 2013) during reading. The finding will be discussed in the context of present cognitive (Fuzzy Trace Theory), acquisition (Declarative/Procedural Model) and processing (SSH) approaches.

## **Incidental second language grammar learning through dialogue: The acquisition of stem-vowel alternations in German strong verbs by adult native speakers of Dutch**

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Although much L2 learning takes place through communication, scientific knowledge about the underlying mechanisms of uninstructed grammar learning, and how these differ from learning processes under conditions with explicit instruction, is still sparse. There is a growing body of psycholinguistic research comparing SLA under incidental versus explicit learning conditions (DeKeyser, 2003; Ellis, 2009) but comparative studies are often biased toward advantages for explicit instruction (Morgan-Short, Steinhauer, Sanz, & Ullman, 2012). Furthermore, many studies in this domain have used (semi-)artificial languages (Rebuschat & Williams, 2012), which limits the generalizability of findings to L2 learning in more natural, implicit contexts.

Our experimental study contributes to this research by investigating the acquisition of a complex morphosyntactic feature in a natural language (stem-vowel alternations in German strong verbs) in a communicative yet experimentally controlled context (De Vos, Schriefers, & Lemhöfer, in preparation). We used a meaning-focused conversational task to measure learning from native-speaker input and compared learning outcomes of advanced L2 German learners (L1 Dutch) in an implicit ( $n = 27$ ) and explicit ( $n = 21$ ) condition. The participants in the implicit condition did not know that their learning was measured, nor that grammar was targeted, whereas the learners in the explicit condition were explicitly encouraged to pay attention to the stem-vowel alternations in the input.

In both conditions, each participant and the experimenter (L1 German) engaged in a scripted dialogue and produced, in turn, sentences that were based on pictures and that contained either a stemvowel-changing critical or non-stemvowel-changing control verb. Learning was measured in terms of participants' improvement in accuracy on critical items after input, as compared to accuracy scores on items for which no input was provided.

Preliminary findings based on a subset of the participants ( $N = 20$ ) suggested comparable amounts of learning for both groups; thus, explicitly guiding the participants' awareness towards the target did not yield an added value. A debriefing interview further revealed that the implicit group had noticed the strong verbs but was unaware of the study's learning purpose, suggesting that learning had happened incidentally. More generally, these results illustrated that morphosyntactic learning can occur during even brief instances of conversation. These preliminary findings will be verified and expanded with those from a mixed-effects modelling analysis of the full dataset ( $N = 48$ ).

## Where is the /h/? On the absence of /h/ in the lexical representations of French learners of English

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French learners of English have great difficulty with producing 1 and perceiving 2 [3] the English phoneme /h/ which does not exist in French. However, it is not the low perceptual salience of /h/ that causes the difficulties in acquiring this sound, as French learners of English are able to perceive /h/ on the acoustic level [3]. In the current study we used a lexical decision task to test whether this problem is phonologically based and whether /h/ is encoded in the lexical representations of L2 learners of English. While previous research used lexical decision to study the processing of contrasts between two segments, this is the first time this task is used to examine the processing of a contrast between a segment (/h/) and silence.

### Method

20 native French speakers, proficient in English, and 14 native English controls performed a lexical decision task. The test stimuli were 20 /h/-initial words (e.g. happy), 20 vowel-initial words (e.g. apple) and the corresponding pseudowords created by deleting or adding an /h/ at the beginning of the word (e.g. *appy*, *happle*). We also included 60 control words and 60 pseudo-words, created by replacing, deleting or inserting one phoneme in the word. Test and control words were matched for frequency and number of syllables. Each participant heard only one of the members of each word–nonword pair (160 stimuli in total). The task was to decide for every stimulus whether it is a real word or not.

### Results and discussion

In order to account for response bias, accuracy was analyzed using the A' measure (where 0.5 indicates a chance level performance and 1 perfect discrimination). An ANOVA by participant revealed main effects of Condition ( $F(1, 32) = 33.26, p < .001$ ) and Group ( $F(1, 32) = 29.67, p < .001$ ) and an interaction between the two ( $F(1, 32) = 18.33, p < .001$ ). Restricted analyses revealed that the interaction was due to the fact that although there was an effect of Condition in both groups, with better performance on control than on test items, this effect was larger in the French group (French:  $Mean_{test} = 0.67, Mean_{control} = 0.94; F(1,19) = 30.81, p < .001$ ; English:  $Mean_{test} = 0.96, Mean_{control} = 0.98; F(1,13) = 7.72, p < 0.03$ ).

These results point to the difficulty of L2 learners to distinguish real words from pseudowords when /h/ is involved. Thus, L2 learners lack well defined representations of /h/ in their mental lexicon.

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## L2 Norwegian in children and adults – a Processability account

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Child L2 acquisition has not attracted as much interest as adult L2 acquisition in SLA research. However, there is a large number of children acquiring a second language in the world and research is motivated from both practical and theoretical reasons. In this paper we will use Processability Theory (PT, Pienemann 1998) as theoretical background to examine L2 Norwegian in children and to compare them to earlier results on adults. In Glahn et al (2001) Processability Theory was applied to the acquisition of L2 Norwegian in adults, but our study is the first to use PT for the analyses of L2 Norwegian in children.

PT predicts a hierarchy of stages in the acquisition of certain morphological and syntactic phenomena. In the present study we focus on the same target structures that were used in the Glahn et al (2001) study on adults: attributive adjective morphology, predicative adjective morphology, and subordinate clause syntax (placement of negation). These phenomena are located at successive developmental stages and they were found to emerge in the predicted order in adults. The aim of the present study is to find out whether the structures appear in the same order in the child L2 learners. We use the same oral elicitation material and the same analytic methodology as in the adult study. This ensures comparability between the studies.

The adult learners were 10 students enrolled in courses of L2 Norwegian (Glahn et al 2001). The children in the present study are 16 multilingual children (15 of whom are born in Norway) who have Norwegian as one of their languages, but used another language than Norwegian with their parents, before they started school. Both studies are cross-sectional.

The results show both similarities and differences between the adults from the earlier study and our children. Similarly to the adults, the children follow the predicted PT hierarchy for L2 Norwegian. All children who produce the predicative agreement (Stage 4) also produce attributive agreement (Stage 3). With two exceptions, all children who produce subordinate clause syntax (Stage 5) also produce Stage 3 and 4 structures. This means that there is an implicational order between the stages.

There are also differences between the groups. The adults tend to make errors of commission, whereas the children make errors of omission. This suggests that the children in our study are slightly different from the adults and behave somewhat more like L1 learners. The theoretical implications of this result, for Processability Theory and for SLA in general, will be discussed.

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## **L2 English article use by speakers of article-lacking Croatian and Mandarin Chinese: similarities and differences**

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L2 learners of English from article-lacking L1 backgrounds have been shown to exhibit problems in oral production of English articles, especially of the indefinite article (Avery & Radisic, 2007; Snape, 2009), even though there is evidence that they can use articles effectively in other domains such as online comprehension (Trenkic, Mirkovic, & Altmann, 2014).

The present study investigated spontaneous oral production of advanced L1 Mandarin and L1 Croatian learners of L2 English on a narrative task, focusing on the production of countable singular nouns. Both L2 groups, as well as the L1 English controls, supplied the definite article more consistently in obligatory contexts compared to the indefinite article, which is in line with previous research (see above). However, the two L2 groups, although both from article-lacking L1 backgrounds, showed different levels of accuracy of article suppliance in both the indefinite and definite contexts. While the L1 Mandarin group showed accuracy statistically no different to that of L1 English speakers, the L1 Croatian group performed significantly less accurately than the L1 Mandarin group in both contexts. In addition, L1 Mandarin speakers' errors with the indefinite article were marked by substitution errors, while the L1 Croatian learners tended to omit the obligatory indefinite article.

The findings of the present study suggest that coming from an article-lacking L1 background does not necessarily mean that the learners will exhibit the same problems in oral article production. These findings potentially give credence to the debate that Mandarin Chinese has been on a path of grammaticalizing markers of (in)definiteness (Crosthwaite, 2014). Or at least, the more frequent use of nominal phrases (NPs) preceded by a determiner in Mandarin Chinese helps the learners transfer such syntactic patterns into their L2 English in which certain NPs need to be preceded by a determiner (e.g. countable singular nouns).

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## The effect of pre-reading vocabulary instruction on allocation of attention and incidental vocabulary learning from reading: A comparison of L1 and L2 learners' eye movements

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Incidental vocabulary learning from reading depends, among other factors, on the degree of involvement in processing unknown words (Laufer & Hulstijn, 2001). Instructional intervention prior to reading seems to increase the saliency and cognitive processing of target words when they are encountered while reading, leading learners to pay more attention to the recently learned vocabulary and supporting incidental vocabulary learning (Paribakht & Wesche, 1997). However, it may also discourage guessing strategies which in turn affect the incidental learning process (Nation & Coady, 1988). Thus, it is still unclear whether there is any facilitation effect from pre-reading activities on the online processing of pre-taught items and the relationship this might have with learning gains.

A combination of online (eye-tracking) and offline (vocabulary tests) measures were used to investigate the effect of pre-reading vocabulary activities on the processing and learning of vocabulary from reading. Thirty-three native speakers (L1) and 36 advanced second language (L2) learners of English read a story containing six target nonwords repeated eight times while their eye movements were recorded. Participants were randomly assigned to one of three conditions: pre-reading teaching condition, where participants were first taught the nonwords; reading-only condition; and a control condition, where participants read the story with real words. After the reading participants completed recognition and recall tests to assess their knowledge of the nonwords. Data was analysed via linear mixed-effects models. Results showed that the pre-teaching condition led to larger gains, particularly in the recall test. Analysis of the eye-movement data (first pass reading time, first fixation duration, total reading time, N of fixations) showed that pre-reading instruction did not lead to differences in the processing of the target vocabulary in the first encounter with the nonwords in the text. However, the learners in the pre-reading teaching condition showed more fluent reading patterns from the second encounter. By the last repetition, L1 speakers processed the target words in both conditions in a similar way to control words, while L2 speakers in the reading-only condition still read the target words slower. Longer reading times did not lead to larger gains.

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## **Influence of L2 English on the acquisition of L3 Spanish past tense morphology among L1 German speakers**

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This talk focuses on the acquisition of past tense morphology by German-speaking learners of Spanish as an L3, taking into account the learners' L2 knowledge of English. Most L3 models agree that both L1 and L2 knowledge can influence L3 acquisition (Flynn et al. 2004, Rothman 2010). Recent studies have shown that L2 transfer of imperfective meaning from one Romance language into another occurs (Salaberry 2005, Foote 2009). In this study, we additionally claim that not only Romance languages, but also L2 English will have a positive effect on the acquisition of past tense morphology in L3 Spanish.

Contrarily to English, German has no grammaticalized progressive and generally lacks aspectual morphology (Heinold 2015). In L2 English, German speakers have hence their first contact with aspectual contrasts. In Spanish, the contrast between the Preterit and the Imperfect involves the aspectual notion of (im)perfectivity. Although the English system differs significantly from the Spanish one, we hypothesize that advanced knowledge of English contributes to a higher awareness of aspect as grammatical concept and thus leads to a detectable advantage in L3 Spanish performance. We present data from 50 German-speaking learners of L3 Spanish, subdivided into two groups according to their proficiency level in L2 English on the CEFR. We hypothesize the following: (1) Low proficient English learners will have more inconsistency in their use of perfective and imperfective morphology in Spanish than high proficient learners. (2) On the other hand, high proficient English learners might map progressivity to activities and telics only, and will therefore have lower accuracy in their use of imperfective morphology with state verbs than the low group learners of English. We predict, however, that the effect drafted in (2) does not lead to an overall-inaccuracy, as not the specific rules of the English grammar but the general knowledge of aspect as grammatical concept is transferred: learners with a higher proficiency in English are more familiar with this concept and are thus in an advantageous position.

Data are collected via a 40-item discourse-based forced-choice task, replicating the methodology of Salaberry (2011). The task is distributed at different universities in Austria and Germany. First results of our ongoing study indicate that indeed, there is a difference between group A (intermediate level of English) and B (advanced level of English). We conclude that also an L2/L3-combination of languages with different phenomena can lead to transfer, whenever learners perceive the relation between the two languages as similar.

## Bilingual and monolingual speech rhythm in additional language learning

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While there has been no empirical justification for a binary view of rhythm classes (Abercrombie 1967), crosslinguistic differences in rhythm structures have been shown to emerge as underlying tendencies. For example, infants can distinguish languages on opposing ends of the rhythm spectrum (Nazzi et al. 1998). Thus, we can assume a spectrum along which languages show recurrence of a particular timing unit in perception and production.

In L2 speech, rhythmic properties are known to be subject to the L1 (Lee & Jang 2004), and intermediate values between L1 and L2 may be attested (Carter 2005). Simultaneous bilinguals may manage to differentiate between the rhythmic patterns of their languages only if those native-like differences are present in the input (Whitworth 2002). More research is necessary to confirm these findings, looking at other language constellations.

Here, we compare monolingual German (M) and Turkish-German early bilingual (B) speakers in their acquisition of rhythmic properties of English (E), L2 for M but L3 for B. While both German (G) and E are considered to be stress-based, Turkish (T) shows symptoms of syllable-based languages (Kabak 2014) with a higher %V score (% vocalic duration) than, for example, E and Dutch (Nespor et al. 2011).

Specifically, we ask whether M and B approach the task of acquiring an additional language differently, i.e., whether they produce E with different rhythm structures, and to what extent these differences can be linked to transfer from T and G.

To this end, we analysed data from adult M (n=8) and B (n=6) advanced learners of E (mean age=23.5, sd=2.38), who read an E text (1711 words) plus “The North Wind and the Sun” in G and T (only B). The Bilingual Language Profile (Birdsong et al. 2012) showed all Bs to be G-dominant. We calculated commonly used pitch (mean/max/min pitch, avg. slope) and durational (%V,  $\Delta V$ , VarcoV) indices using Praat. For the latter, we focused only on vowel-based indices since those based on consonantal durations would be an artefact of limited syllable types of T, which do not transfer directly to E but emerge in L2A as vowel epenthesis (increasing vocalic proportions) instead of consonantal simplifications.

Our preliminary analyses of the E text (linear mixed effects models) show that, while speech rate was the same across groups, %V was significantly higher for M than B, suggesting possible influence of the L1. Group differences also emerged for  $\Delta V$  and VarcoV, with B producing significantly higher values, possibly due to the higher number of potential transfer sources in B leading to enhanced variability overall. Finally, group had no effect on any of the pitch indices calculated so far.

Based on additional measurements currently underway (nPVI, number of pitch peaks), we will examine the relationship between all the rhythm metrics across languages/groups to gain further insight into the interaction of multiple languages in SLA and discuss consequences for L3A models.

## Investigating teachers' judgments of syntactic complexity in L2 academic writing

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As has been argued in various studies (Bardovi-Harlig 1992; Wolfe-Quintero et al. 1998), syntactic complexity in L2 is thought to develop in three stages. At beginning and low-intermediate levels syntactic growth may show an increase of coordination (Vyatkina 2012). High-intermediate levels are thought to display an increase of subordinate structures (Norris & Ortega 2009), whereas advanced proficiency levels may be characterized by subclausal complexification at the phrasal level, characteristic of academic discourse and written prose (Biber et al. 2011).

The aim of the present paper is to investigate how teachers' judgments relate to this hypothesized development. The overarching question is how L2 teachers perceive syntactic complexity and to which features of students' writing they pay attention when evaluating syntax. The following research questions will be addressed:

- (i) How do L2 teachers judge syntactic complexity in academic writing and how do they motivate their judgments?
- (ii) Which feedback do they give to students of different proficiency levels?
- (iii) To what extent are teachers' judgments of syntactic complexity shaped by typological features and syntactic preferences of the target language?

Two groups of 11 language teachers of Dutch and 11 of Italian (native speakers of the target language) were asked to evaluate the syntactic complexity of a sample of argumentative texts (n = 6), written by L2 university students of Dutch and Italian (level A2-B2) of various proficiency levels. All essays were judged individually on a six-point Likert scale, inspired by the CEFR. Teachers also motivated their scores and provided focused feedback to the students in order to improve their texts. In the panel discussion that followed they were asked to justify and explain their choices.

The findings of the paper will be related to theoretical assumptions as hypothesized in the SLA literature concerning the development of syntactic complexity.

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## Syntactic development in early foreign language learning: effects of L1 transfer and input

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While L1 transfer is a hallmark of adult L2 acquisition (SLA), the scope of L1 transfer in child SLA is much less clear. Some approaches hold that the L1 affects syntactic development in child and adult SLA equally (e.g. Schwartz, 2009); other approaches, e.g. Processability Theory (Pienemann, 1998), claim that either there is no L1 transfer or that transfer occurs only at higher levels of proficiency (e.g. Lenzing, 2013).

Against this backdrop, the present paper delineates the scope of cross-linguistic influence in child L2 development of *wh*-questions and relative clauses. Following Rankin (2014), we used a picture interpretation task to test the interpretation of *wh*-questions (Which animal chases the cat/does the cat chase?) and relative clauses (The animal that chases the cat/that the cat chases). When translated literally to German, English subject *wh*-questions are ambiguous between subject and object questions (Welches Tier beißt die Katze?), for relative clauses, object relative clauses are ambiguous (Das Tier, das die Katze beißt.)

As baseline data, we collected data from 68 monolingual English children aged between 5 and 8 years. We also tested 268 German-dominant learners of English in 4th grade (mean age: 10;01 years) at different regular, partial and near-full immersion schools in Germany who had all started learning English in grade 1. All learners of English either had only German as the L1 or had grown up bilingually, i.e. speaking a heritage language at home as well as German. In addition, we assessed general English language proficiency (TROG-2, Bishop, 2003), non-verbal IQ and parental education in order to test how early L2 syntactic development is affected by (a) input (type of school), (b) bilingualism (L1 German vs 2L1) and (c) individual difference factors, i.e. social, cognitive and linguistic variables.

The results show that English monolinguals perform at ceiling. For child L2 learners, a linear-mixed effects regression identifies only input (school type) and English proficiency (TROG) as significant predictors of L2 syntactic development. Yet, at no proficiency level do the child L2 learners manifest effects of L1 transfer, i.e. object interpretations of subject questions or subject interpretations of object relative clauses. Instead, lower-proficiency learners at regular and partial immersion schools interpret object questions and clauses as subject questions and clauses throughout. Students in full immersion schools approximate target object interpretations for object questions and clauses. This suggests that neither L1 transfer affects child SLA nor that a general subject-first preference overrides any effects of L1 transfer. We discuss differences between child and adult SLA as well as effects of input in child L2 syntactic development, and we situate our findings in the context of current models of child and adult SLA.

## Learning novel morphosyntactic patterns from dynamic visual events: Evidence from eye-tracking

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Recent years have witnessed increased interest in identifying how various types of exposure and individual learner profiles contribute to novel morphosyntactic pattern learning (e.g., Andringa & Curcic, 2015; Brooks, Kwoka, & Kempe, 2016; Indrarathne & Kormos, 2017). However, this research has exposed participants to either text or static images during learning, rather than dynamic visual events illustrating the meaning of novel utterances. Therefore, the current study extends this prior research by examining novel pattern learning from dynamic visual displays.

English-speaking university students (N = 36), all speakers of Germanic or Romance languages with no prior knowledge of Georgian, carried out a construction learning task followed by tests. The target patterns involved completed (bich-ma kocn-ul gogoit, “boy kissed girl”) versus ongoing (bich-su kocn-ar gogoit, “boy is kissing girl”) events in Georgian, with affixes on the noun (subject) and the verb (-ma and -ul for completed, -su and -ar for ongoing). Participants first learned six Georgian nouns and three verbs by associating them with relevant toy characters (e.g., girl) and actions (e.g., kiss). They then watched 36 videos (about 5.5 seconds each) depicting completed and ongoing actions performed by a person holding a toy character in each hand. Participants’ eye movements were recorded as they listened to an utterance describing the event, while viewing the image of the last video frame. In tests, participants heard 24 sentences featuring correct and incorrect combinations of target morphemes and selected the corresponding image of a completed or ongoing event.

Preliminary results showed that, in tests, participants tended to rely on the morphological marking on the first noun. Eye-gaze patterns further revealed how learning progressed. Early in the utterance, participants tended to look at the subject character for completed actions more than ongoing actions. However, after verb onset, they attended to the object character for ongoing actions more than completed actions. This suggests that the participants could predict the second noun (object character) based on the morphological marking on the first noun (subject character) and the verb. Implications of findings for morphosyntactic learning are discussed.

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## Gender cues in L1-Russian children acquiring German as an early L2

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**Introduction:** We investigate whether Russian-German bilingual children acquire cues to grammatical gender assignment in their two languages successfully and separately.

**Background:** German and Russian both have a three-way gender system (M, F, N). While gender assignment is relatively transparent in Russian (e.g. Corbett 1991), there are different views on whether German gender is rule-based. Köpcke (1982) and Zubin & Köpcke (1996) showed that the gender of many German nouns is assigned on the basis of structural or semantic cues. Thus, relatively reliable rules have been argued to exist, and young monolingual and bilingual German children appear to be sensitive to these rules (e.g. Mills 1985, Müller 1990).

**Research questions:** So far, the study of gender in the acquisition of German has mostly been based on real words (e.g. Dieser 2009, Eichler et al. 2012, Ruberg 2013, Lemmert & Hopp 2017). This leaves open whether children know the underlying assignment rules or memorize the determiner together with the noun. We therefore ask the following questions:

- (i) Do bilingual children make use of gender cues in German?
- (ii) Do bilingual children use the same strategy for their two languages?

**Experiments:** The task was inspired by Karmiloff-Smith (1979) and focused on the children's sensitivity to phonological cues. There were 24 nonce items (8 M, F, N) representing relatively reliable cues based on the literature and a pilot with adults: -e for F, -ett for N, and monosyllabic nouns with a [ʃ]-initial cluster and ending in a consonant cluster for M. The children were shown an imaginary coloured object, introduced by name, yet without an accompanying element agreeing in gender (e.g. This is called "frixe"). The children were then shown a second object of the same type with a different colour and asked to guess which object would disappear. The expected answer was a definite DP with an adjective (e.g. die gelbe Frixe "the yellow frixe"). A second experiment elicited existing nouns with the same gender cues. The children were also tested on their sensitivity to gender cues in Russian with a similar set of experiments.

**Participants:** 60 German-Russian children aged 3-10 and monolingual controls. The bilingual children are growing up in Germany with one or two Russian-speaking parents.

**Results:** Even the youngest children were sensitive to the gender cues. Performance increased with age and was significantly better with real words than nonce words. Similar to adults, monolingual and bilingual children were significantly more sensitive to the F gender cues than to other cues, and least sensitive to M. In the nonce word task, both F and N functioned as defaults, while only F was resorted to by default in the real word task. This is strikingly different from Russian, where the children defaulted to M irrespective of the task.

**Discussion:** We discuss our results in relation to language separation in bilinguals and item-based vs. rule-based acquisition.

## Effects of high-variability phonetic training on the pronunciation of second-language vowels in spontaneous speech

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High-variability phonetic training can improve the pronunciation of second-language speech sounds in isolated words as well as in words embedded in scripted sentences and paragraphs (e.g. Bradlow et al., 1997; Lambacher et al., 2005; Lengeris and Hazan, 2010), but we still do not know whether learning transfers to spontaneous speech.

The current study examined the effectiveness of high-variability phonetic training on Greek speakers' pronunciation of English vowels in sentences and in spontaneous speech. Another group of Greek speakers served as controls, i.e. they did the same pre- and post-tests but did not follow the training programme. As discussed in Huensch (2016), one of the main methodological difficulties when testing pronunciation performance in spontaneous speech is how to quickly and efficiently elicit naturalistic data that contain the target items. To do so, a spot-the-difference task was devised whereby each participant was recorded describing the differences between two pictures. Performance was evaluated pre- and post-training via (a) identification tests performed by native English listeners and (b) an acoustic analysis of vowels.

High-variability phonetic training improved the trainees' pronunciation of English vowels in both speaking conditions. These results indicate that the high-variability paradigm can have ecological validity as it enhances the trainees' communicative ability beyond the (scripted) sentence level.

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## Investigating the Development of L2 Writing: A Growth Curve Modeling Approach

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Recent years have witnessed a growing attention to usage-based and emergentist accounts of language learning that highlight the experientially adaptive nature of language knowledge [6]. Situated within these accounts, a growing number of studies has demonstrated that language development is highly variable even in similar learners in similar circumstances [3] [4] [7]. However, although these studies have tracked writing development over a longer time period, they have been confined to small sample sizes and relatively small number of indices. Furthermore, previous research to date has not employed adequate statistical methods to model development over time.

The present study aims to contribute to this body of research by investigating the development of lexical sophistication in longitudinal L2 writing samples for a large number of university students (N = 152). These samples were elicited on a weekly basis (10 time points) and analyzed using 456 indices implemented in TAALES [5]. For each index, the developmental trajectory was analyzed using generalized additive models 1 in which the time variable was entered as a thin plate regression spline and random variability in the nonlinear patterns was modeled using factor smooths.

The analyses revealed that (1) at the group level, there were significant performance increases over time for 443 out of 456 indices investigated with 11 out of the top-20 most improved indices concerning academic language use (i.e. academic word list and n-gram frequency indices), (2) the growth was almost always non-linear (edf > 1.5 for 442/456 indices), (3) the developmental trajectories were subject to considerable individual differences with regard to both the magnitude of growth and the time period in which the most rapid growth occurred (factor smooths were significantly different from zero in 451/456 models). The findings are discussed in light of emergentist accounts of L2 learning.

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## The acquisition of finiteness by Chinese child L2 learners of English

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We investigate the acquisition of verbal tense and agreement morphology in L2 English by Chinese child learners. Specifically, we aim to identify the potential impact of the age of onset for child learners in an EFL environment and to investigate the hypothesis that children starting at a younger age may have an advantage in the acquisition of (tense and agreement) morphology, a position that has its theoretical roots in the Critical Period Hypothesis (Lenneberg, 1967; Meisel, 2009).

**The study:** To investigate the impact of the age of onset (AoO), we looked at two groups of learners with an average of 5 years of instruction but differing in AoO. Specifically, in our Group A we tested 39 9-year olds with AoO=4 while in our Group B, we tested 34 12-year olds with AoO =7. We recruited these 73 children in private language schools in Shanghai, where they had been taught for 2 hours per week for around 5 years. To investigate the acquisition of tense and agreement morphology we used the Test of Early Grammatical Impairment (TEGI, Rice & Wexler, 2001) focusing on the production of 3SG -s and Past -ed.

**Results:** Older children are more accurate both with 3rd person agreement and past tense reaching 42% and 66% accuracy respectively, while younger children manage only 11% and 29% after 5 years of instruction. There are important qualitative differences between the two groups. The younger children produce a bare verb around 40% in the 3rd person agreement condition, but also employ a 'be +verb' strategy in 27.5% of their productions: 'e.g. the dentist is fix teeth' instead of 'the dentist fixes teeth'. This strategy is significantly reduced in the older children (9%) while, nevertheless, bare forms persist at 42%. Similar patterns are found in the past tense condition.

**Discussion:** The results do not show an advantage for children with an earlier AoO since the older learners reach higher accuracy of verbal morphology. In addition, the younger children make productive use of the 'be +verb' strategy. This strategy could be viewed a direct transfer of the L1 Chinese aspectual progressive/durative marker 'zai'. However, we will argue that the 'be +verb' strategy signals early sensitivity to inflection. At this point, though, we do not know which finiteness features are the relevant ones and why dropping the strategy does not lead to more finiteness marking in the older children.

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## Measuring individual differences in cognitive abilities in the lab and on the web

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The collection of experimental data via the internet can contribute significantly to the study of second language acquisition by facilitating the collection of substantially greater amounts of data in shorter time periods than is usually possible in lab-based experiments (MacWhinney, 2017; Meurers & Dickinson, 2017). In this study, we investigated whether lab-based and web-based versions of cognitive individual difference measures (working memory and declarative memory) were comparable concerning two types of equivalence, namely (1) whether the two versions yielded similar scores and (2) whether differences in scores were parallel in the two versions. For the working memory test, the results indicate that the two versions are equivalent if they are used exclusively in the same mode. For the verbal declarative memory test, the two versions are equivalent regarding both equivalence types. For the nonverbal declarative memory test, there are instances where the two versions are equivalent in the first equivalence sense, but only if the measurement is done in a certain range of the construct; the two versions are not equivalent in the second sense. Overall, the study provides evidence that web-based testing of cognitive abilities can produce similar performance scores as in the lab. Establishing measurement equivalence of the two administration modes is important because web-based testing allows researchers to address some of the current methodological issues related to lab-based research, such as restricted population sampling, low statistical power, and small sample sizes.

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## Low Proficiency Does Not Mean Ab Initio: Actual Exposure Matters for L3 Transfer Studies

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A central question in the nascent field of formal linguistic approaches to L3/Ln acquisition relates to determining what variables condition the selection between previously acquired systems (the L1 or L2) for transfer at the initial stages and indeed beyond (see Falk and Bardel 2010; González Alonso et al. 2017, for relevant models). In the present study, we contribute to better understanding the role actual exposure plays—above and beyond relative proficiency—for competing theories of morphosyntactic transfer in L3/Ln acquisition. Doing so, as we will see, is highly significant for the question of initial stages transfer that several L3 models claim to be testing.

We present data from a Picture-Sentence Matching task tapping into L3 English Negative Polarity Items (NPIs) ‘anything/anybody’ and Negative Quantifiers (NQs) ‘nothing/nobody’ by Catalan-Spanish bilinguals across four different conditions with sentences targeting conditional and double negation structures. These conditions license different interpretations for Catalan and Spanish, allowing us to isolate the source—if any—of L3 transfer. To this end, we offer two statistical analyses from the same data pool of so-called “beginner” L3 learners, underscoring how ab initio and low proficiency cannot be taken as proxies for essentially the same thing. The first analysis consisted of a generalized linear mixed effects logistic regression analysis with, among other variables, amount of exposure as a continuous variable. The results overall favor Catalan as a transfer source, yet show some variability for one condition where Spanish seems to also be playing a role. The model, however, showed only one, yet crucial significant predictor accounting for the variability: the amount of exposure to the L3. Based on the results of the first analysis, we ran a secondary analysis in which we differentiated between true ab initio versus low proficiency beginner learners with significant exposure to the target L3. Such an analysis shows that the results are uniform when examining ab initio learners only, Catalan-like interpretations are consistent across all conditions.

Along with González Alonso and Rothman (2017), we conclude that exposure matters beyond proficiency; that is, even when proficiency is held constant at very low levels, low proficiency L3 learners (< A1 level of the CEFR) who have had significant exposure to an L3 over time pattern differently from truly ab initio L3-learners, which we take to be a by-product of development/acquisition rather than of hybridity in transfer selection. We discuss how this reality complicates isolating L3-transfer from effects of L3-development/acquisition and the implications of this for the existing L3 literature.

## A comparison of grammatical gender marking in additional-language French and Spanish

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Prior research on grammatical gender marking in additional languages (AL) has identified various factors that influence gender-marking behavior across languages, such as noun gender and modifier type (Alarcón 2010; Bartning 2000). However, language-specific differences have also been highlighted. For example, research on children learning 2 gendered languages has shown greater mastery of the more transparent system (Kupisch et al. 2002; Rodina & Westergaard, 2017), with Spanish being an example of a more transparent system and French a less transparent one. In the current study, we contribute to research on gender marking with an investigation of general and language-specific patterns. We do so by examining learning trajectories for 2 groups of British university students specializing in French or Spanish, with data collected over 21 months, including an academic year in a target-language community.

We analyzed oral-production data for 20 participants specializing in French and 21 in Spanish. Data were recorded at 3 different times: before learners went abroad, 1 year later (at the end of their stay), and 8 months after returning to the UK (Mitchell et al. 2017). The corpus consisted of instances of phonetically overt gender marking (N=5,992 for French; N=9,461 for Spanish). Each token was coded for whether gender marking was targetlike and for linguistic and extralinguistic factors identified in research as playing a role in gender-marking behavior. Hierarchical linear models were used to analyze the data; results revealed that gender-marking behavior in both AL French and Spanish is characterized by certain core factors: noun gender (more targetlike with masculine nouns), modifier type (greater targetlikeness on determiners than adjectives), and syllable distance (greater targetlikeness with modifiers close to the noun). Differences as a function of language were also found, which we argue reflect the greater transparency of the Spanish system. We conclude by discussing the implications of comparing developmental trajectories for the same linguistic phenomenon across languages.

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## C-center effects in second-language phonology

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There is extensive research on the temporal organization of syllable-structure as indexed by the relative timing of the articulators (Browman & Goldstein 1988, Browman & Goldstein 1995, Byrd 1995). The research suggests consonants in complex onsets, as in English, are aligned to a single position called the C-center, the mean of the midpoints of each consonant in the onset. In contrast, in Moroccan Arabic, where word-initial consonant clusters don't form a complex onset, there is right-edge alignment, i.e., the right-most consonant has a stable temporal relationship with the following vowel (Shaw et al 2009). Thus, there are at least two distinct temporal patterns for (word-initial) consonant clusters. This raises the question: do L2 speakers show a C-center effect in their L2 productions, though their L1 has little evidence of such an organization? Here, we show that native speakers of Mandarin, a language which only allows consonant-glide onset sequences (Lin 2007), do show a C-center stability pattern in their L2 English productions.

We used acoustic recordings, which have been argued to be effective in probing both a C-center organisation for English (Selkirk & Durvasula 2013), and a right-edge organisation for Jazani Arabic (Ruthan 2017). The recordings were L2 English productions of 10 native Mandarin speakers (age range: 19-21 yrs; length of time in the US: 2-3.5 years). Subjects produced 10 repetitions of 24 English words (9 test, 15 filler) that varied in the number of onset consonants ( $C_1, C_1C_2$ ) in two different vowel contexts [test words: nap, snap, sap, Mac, smack, sack, nip, snip, sip]. In each token, we made 3 duration measurements to the end of the vowel: (1) from the center of the left-most consonant (Left-edge), (2) from the average of all the consonant mid-points (C-center), (3) from the center of the right-most consonant (Right-edge). To assess variability, we used standard deviation (SD) and, following Shaw et al 2009, relativized standard duration (RSD), which they argued control better for the fact that the longer productions tend to be more variable.

A one-way Anova with interval type (Left-edge, C-center, Right-edge) as a factor and RSD as the dependent variable was statistically significant, and accounted for a sizable portion of the variance [ $F(1,2,7.1)=10.32, p=0.002, \eta^2=0.36$ ]. Follow-up paired t-tests showed that the C-center RSD (and SD) values were lower than the Left-edge RSD values [ $T(6)=5.85, p=0.001$ ] and the Right-edge RSD values [ $T(6)=4.53, p=0.004$ ]. This pattern of results was true *for every subject*. Thus, the addition of more consonants *least* affected the C-center interval.

Native Mandarin L2 speakers of English do exhibit C-center patterns in L2 productions, despite not having extensive evidence of such patterns in their native language. An important question for future research is whether such C-center patterns in L2 speakers are learned from exposure to the L2 or from default expectation.

## **The effectiveness of written corrective feedback: how does it vary across learner individual differences and error types?**

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The place and role of written corrective feedback (WCF) have generated considerable interest in second language acquisition (SLA) theorizing and L2 teaching (Lee, 2017). Likewise, the effectiveness of different WCF techniques has been debated in theoretical and empirical research (Ellis, 2009). However, most empirical studies that compared direct WCF (i.e., input providing) and indirect WCF (i.e., output eliciting) have been conducted in English as a second language settings, and only few of them have systematically examined the potential mediating effects of error types and learner individual differences (e.g. Sheen, 2007), which explains why the extant WCF research is plagued with conflicting findings (Gu enette, 2007; Storch, 2010). The inconclusive results about the relative merits of different WCF types, as well as the need to account for mediating variables, motivate the present study.

This quasi-experimental study examines the differential impacts of three WCF techniques, one direct technique (i.e., reformulation without metalinguistic clues) and two indirect techniques (i.e., underlining only, and underlining with metalinguistic clues). It also explores the potential mediating effect of error type (i.e., syntax and morphological grammar) and learner individual differences (i.e., proficiency and metalinguistic knowledge). Four secondary French as a second languages classrooms (n=125) from different schools in Quebec, Canada participated in this study. Three were assigned to the experimental conditions and one was the control group. Learners in all groups completed a pre-test, three writing tasks, an immediate post-test and a delayed post-test. The three experimental groups received WCF and consecutively revised their texts, while the control group revised their texts without having received WCF.

Preliminary results indicate that learners who received WCF outperformed those who did not and that the group receiving metalinguistic clues outscored those who did not. The effects of the three WCF techniques varied in terms of learner individual differences and error types. Implications for pedagogy and future research are discussed.

## Translanguaging in the ESP classroom: Does it really make a difference in terms of L2 development?

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Translanguaging, as 'bilingual pedagogy' (Creese & Blackledge, 2010) has become the focus of research of several studies in applied linguistics since researchers like Cummins (2005) or García (2009) began questioning the pedagogical tradition of monological approaches to language teaching and learning; and only recently has Translanguaging been considered as a pedagogical approach in the teaching and learning of English as a second/foreign language (Cenoz & Gorter, 2013). However, most of the research on Translanguaging has focused on how this new pedagogy is applied in different contexts and, to our knowledge, there is no research that has attempted to explore its impact on foreign language development. Hence, the goal of the present study is to compare the language proficiency gains of two groups of students enrolled in an ESP course in a bilingual university in Catalonia. Whereas one of these groups followed a 'translanguaging pedagogy', the other followed a strictly monological approach. Participants were 54 mostly Catalan/Spanish bilingual college students of Business (n= 35 translanguaging and n= 19 monolingual). The course module was taught by two different but comparable teachers. Whereas the teacher in the 'translanguaging group' incorporated both Catalan and Spanish as part of the learning activities, the teacher in the 'monolingual group' only used English and allowed only English in class. Participants were administered a placement test, and performed a written composition and an oral sales pitch the first and last week of the semester. The EFL development of the participants was measured in terms of fluency, lexical complexity, grammatical complexity and accuracy, but it was also assessed by an expert examiner, who based her ratings on a rubric including four scales: language, communicative achievement, content, and organization. The preliminary results show that participants in both groups improved significantly on several measures from the pre- to the post-test, and that only two measures, namely the marks of the sales pitch and of the composition (both assessed by the expert examiner) showed a significant difference between groups, both favoring the Translanguaging group.

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## New evidence and insights from corpus data: acquisition of anaphora resolution in L1 Spanish–L2 English

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Anaphora Resolution (AR) relates to how anaphoric expressions refer to their antecedents in discourse. This study explores AR in an L1 Spanish–L2 English corpus at four proficiency levels. In particular, we investigate whether, at the syntax-discourse interface, learners are sensitive to how discourse and information structure (topic continuity and topic shift) constrain anaphoric forms (zero [Ø] and overt pronominal subjects [he/she], as well as full NPs [e.g. the boy]), as in (1a-c).

The study of AR in L1 Spanish–L2 English is a rather unexplored area. Early studies (García Mayo 1998, Ruíz de Zarobe 1998) focused on the acquisition of the syntactic alternation of overt/null pronominal subjects. Recent formal studies (Prentza 2014) have focused on discursive properties. However, these studies are experimental in nature and therefore say little about AR in real discourse. There are a few L2 English corpus-based studies (Hendriks 2003, Kang 2004, Leclercq & Lenart 2013, Ryan 2015), but none of these explores L1 Spanish–L2 English.

We adapted Lozano's (2016) L2 Spanish tagset to L2 English (Fig. 1) and implemented it in UAM Corpus Tool (O'Donnell 2009). Importantly, we tagged not only the form of the anaphor, but also other factors that constrain it and which have been overlooked in the L2 English literature, such as antecedent/paragraph/syntactic factors (cf. tagset). We analyzed written narratives ('frog story', as in Kang 2004) from the COREFL corpus (Lozano & Díaz-Negrillo, accepted, Lozano et al. forthcoming), an L1 Spanish–L2 English corpus of university-level students at several developmental levels (A2, B1, B2, C1 levels) vs a comparable control corpus (English natives).

Results reveal that in topic continuity contexts (Fig 2), an overt pronoun is the most produced option across levels, though rates slightly decrease in favour of Ø pronouns, which are used in coordinated contexts as in (2a), as in native English. By contrast, in topic shift contexts, NP is widely used to avoid ambiguity, as in (1c). In early stages (A2) the NP is probably overexplicit, given that overt pronouns increase with proficiency, so learners can disambiguate but are not too overexplicit. Importantly, the number of potential antecedents has also an effect on anaphoric form (Fig 3). An overt pronoun is the most frequent option with 1 and 2 antecedents (which is expected), but rates decrease with 3 antecedents in favour of NPs. By contrast, the less antecedents, the higher the rate of Ø.

In sum, learners (i) go beyond grammar since they are aware of the discursive/information status factors (as well as the effects of the number of antecedents) constraining anaphoric forms in real discourse, which goes against the notion of 'overexplicitness' reported in the L2 literature (Ryan 2015), but (ii) they fail to acquire full native-like competence, as predicted by the Interface Hypothesis (Sorace 2011).

## Parental input quality and subject placement in Greek heritage children in Western Canada

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Research has demonstrated that heritage speakers typically show patterns in their heritage language that differ from those of age matched monolinguals. Various, non-mutually exclusive factors have been taken to contribute to the observed differences, including the influence of the dominant language in heritage contexts, as well as the quantitative and qualitative characteristics of heritage language input (Montrul 2016; Paradis, 2011; Sorace, 2004; Kupisch & Rothman, 2016). While the role of cross-linguistic transfer and input quantity is relatively well-researched in relation to heritage language development, the role of input quality has received less attention (Paradis & Navarro, 2003; Pires & Rothman 2009).

The aim of this study was to explore the nature of heritage input quality by studying subject placement among children and parents speaking Greek as a heritage language in Western Canada. The following questions were addressed:

(i) Do Greek heritage children living in Canada differ from Greek monolingual children living in Greece in the production of preverbal and postverbal subjects?

(ii) Do the parents of Greek heritage children differ from the parents of Greek monolingual parents in the production of preverbal and postverbal subjects?

(iii) How do Greek heritage children compare with their parents in the production of subjects?

Four groups of Greek speakers participated in the study: (i) 29 six-to-nineteen-year-old children residing in Western Canada; (ii) 20 seven-to-seventeen-year old Greek-speaking monolingual children residing in Greece; (iii) the parents of each one of those groups. The elicitation task (adaptation of Argyri and Sorace (2007)) targeted Greek Wide Focus contexts (WF), where subjects are preferably postverbal, as well as Greek wh-embedded interrogative contexts (EI), where subjects are obligatorily postverbal.

The comparison between the heritage and the monolingual children showed that monolingual children produced only postverbal subjects across the two contexts differing in this respect from heritage children, who produced both postverbal and preverbal subjects. Significantly, the same monolingual-heritage contrast was replicated in the parent groups: whereas monolingual parents only produced postverbal subjects, heritage parents also produced preverbal subjects, though to a significantly lesser extent than their children. Overall, these results support the hypothesis that the parental input of heritage children is qualitatively different from the parental input of their monolingual peers, suggesting that heritage input quality (in addition to heritage input quantity) might influence the outcome of heritage language acquisition (see Sorace 2004 and Paradis, 2011, among others).

## Learning a gender system in a closely related language: German learners' production and perception of Dutch gender

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Both in Dutch and to a lesser extent in German, pronouns can agree with a noun's lexical gender or be chosen on semantic grounds. It is well-known that for non-human antecedents, Dutch seems to be shifting towards a more semantic system, via a process labelled 'resemanticisation', in which gender marking on the pronoun increasingly depends on the degree of individuation of the antecedent (Audring 2009). This paper presents a psycholinguistic investigation on how German learners of Dutch as a foreign language, who distinguish between three nominal genders in their native language, handle the Dutch gender system, which has largely lost its three-way nominal gender, and in which resemanticisation has progressed significantly. More specifically, a speeded grammaticality judgement task was used in conjunction with a sentence completion task to examine the German learners' perception as well as the production of pronominal gender in the L2 (in this case Dutch). Materials contained neuter, masculine and feminine antecedent nouns and elicited production or judgments of the three gender-marked pronouns "het" (neut), "hij" (masc) and "ze" (fem). All antecedent nouns were mass nouns, which means that a preference for "het" would be predicted following semantic principles of agreement. We tested 28 German learners of Dutch who had acquired Dutch in instructed settings and were students of Dutch at a German university. It was found that the learners judged more combinations of pronouns and their antecedents to be grammatical than they actually used in the production task. However, unlike a native control group, syntactic agreement still trumped semantic agreement, and feminine antecedents consistently triggered feminine pronouns. This corroborates the crucial role of the L1 for German learners of Dutch (Sabourin et al. 2006, Lemhöfer et al. 2010), and thus can be explained as a transfer effect. To cast more light on such transfer effects, the role of participants' proficiency in Dutch and of lexical frequency will be discussed.

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## The role of cognitive attention control in L2 phonological acquisition

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Cognitive attention control plays an important role in L2 proficiency development and has been shown to guide auditory processes during speech perception, but its contribution to L2 speech learning remains largely under-researched. This study examined the role of auditory selective attention and attention switching skills in L2 learners' phonological acquisition from an individual differences perspective.

L1-Spanish learners of L2-English (n=30) were trained (3 x 30-min. sessions) on the perception and production of two difficult L2 vowel contrasts (beat-bit /i:/-/ɪ/ and cat-cut /æ/-/ʌ/) through identification, discrimination, and imitation tasks based on nonword stimuli produced by 4 native English speakers (2 female) and sequenced according to linguistic complexity (1- to 3-syllables). Learners' gains in L2 perception (discrimination accuracy) were assessed through a categorical ABX discrimination test. Gains in L2 production (spectral distances between contrasting vowels) were assessed through delayed nonword repetition and a novel interactive task that required learner dyads to produce and identify target words in noise. In addition, we obtained individual measures of auditory selective attention (ASA) in L1 and L2 (% correct identification) through a task consisting of 64 pairs of simultaneously presented sentences (target vs. competing) spoken by a male and a female voice [3]. A word appearing on the screen cued the voice participants had to attend to for correctly identifying 1 of 4 colours and 1 of 8 digits. A measure of L1 attention switching skill (RT and accuracy switching costs) was obtained through a novel task that required participants to attend to either the duration (quantity) or the voice (quality) of L1 isolated vowels. Finally, overall L2 proficiency was assessed through an elicited imitation task. Preliminary results with an analogous population (n=60) showed that ABX perception accuracy was related to L2 proficiency ( $r=.345$ ,  $p=.007$ ) and L1 ASA ( $r=.440$ ,  $p<.001$ ). After controlling for L2 proficiency, L1 ASA explained a significant 17.5% of the variance in L2 perception. The analysis of training gains in perception and production will shed further light on the contribution of cognitive attention control to L2 speech learning. Implications for task design integrating attention to phonetic form in pronunciation teaching will be discussed.

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## Investigating the relationship between L2 writing processes and text quality: The effects of task type and proficiency

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The end products of writing tasks have been the object of much research in second language (L2) acquisition and assessment. Less empirical research, however, has examined the behaviours in which L2 writers engage during the writing process, and how these behaviours may relate to the quality of the resulting text. It also remains unexplored how task type and proficiency may influence the writing process and its link to text quality. Adopting Kellogg's (1996) model of writing as a theoretical basis, the aim of this study was to help address these gaps. Our methodological innovation lay in combining keystroke logging and eye-tracking to examine pausing and revision behaviours at different stages of the writing process.

The participants were 60 L2 users with B1-C1 CEFR levels, 20 students at each proficiency level. They performed two independent and two integrated TOEFL iBT writing tasks, counterbalanced across participants. Writing behaviours were recorded via the keystroke-logging software Inputlog 7, and participants' eye-movements were captured with an EyeLink1000 eye-tracking system. Pausing was assessed in terms of frequency and length, whereas revision was measured in terms of quantity and type. Eye-gaze behaviours were captured by four types of indices for each area of interest (writing window, reading window, instructions): fixation counts, fixation durations, and number and mean of forward and backward saccades. In addition, number of switches between areas of interest were also counted. Text quality was expressed in terms of holistic ratings as well as indices of linguistic complexity and accuracy. All these measures will be computed for the overall writing process. In addition, for each writing task, we will divide the total amount of time participants spent writing into five equal time intervals and calculated all indices for these intervals to capture the dynamic nature of the writing process. A series of linear mixed effects regressions will be run to examine the effects of task type and proficiency on writing behaviours and their relationships to text quality overall and by stage of writing.

In the presentation, we will present the results and discuss the implications of the study for L2 writing and assessment research. We will additionally consider the value of triangulating data sources to examine L2 pausing and revision, and discuss the type of challenges that may arise in the interpretation process. We will end the presentation by considering the possible practical implications of the study for language teaching and assessment.

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## How language-specific lexical access and subjective literacy affect bilinguals' reading fluency at text level in their L1, L2, L3 and heritage language

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If generalized to naturalistic reading, weaker links accounts predict that unbalanced bilinguals read less fluently in their L2, compared to their L1. Consistently, recent eye tracking research at sentence, paragraph and novel-level supports that L2 reading is less automatic and moderated by L2 exposure (Cop et al., 2015; Whitford & Titone, 2017). For models of bilingual reading in the making, it is important to understand if these findings generalize across language pairs and if L1 and Lx reading differ structurally.

In this paper, we investigate how language-specific lexical access and subjective literacy explain individual differences in naturalistic text-level L1, L2, L3 and heritage language reading. In an eye-tracking design, 209 participants read two pages from an Agatha Christie novel (see GECO corpus by Cop et al. 2015) in their L1 German and two subsequent pages in their L2 English (n = 134) or their L3 French (n = 43) or their heritage Turkish (n = 32). Lexical access was inferred from bilingual lexical decision tasks and participants self-assessed their literacies.

Bivariate comparisons of eye movement measures of early reading processes (e.g., first fixation duration, skips) and later semantic-integrative processes (e.g., total reading time, fixations) showed very similar L1 vs L2 differences, compared to the GECO, although participants only read four pages instead of an entire novel. L1 vs L3 vs heritage reading differed substantially more. To investigate how language, lexical access and literacy affect global reading performance, we ran linear mixed effects regression analyses. We included participant and word intercepts and word characteristics as random factors. In the best fitting models, language-specific lexical access and subjective literacy predicted reading performance within and across and, thereby, independently of language. A text's language and its lexical characteristics had stronger effects on early compared to late processing measures of reading, while individual differences in lexical access and literacy influenced later stages more strongly.

In sum, results suggest that naturalistic bilingual reading is – similar to single word recognition – a language non-selective process building on highly similar operations in bilinguals' stronger and weaker languages. We discuss implications for modelling bilingual reading and degrees of bilingualism.

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## Differential effects of metalinguistic awareness in early foreign language learning: Analysis versus control

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Metalinguistic awareness (MLA) is an important driver of adult foreign language (FL) learning success in instructed settings. To date, there is little evidence how MLA and its components interact with learning outcomes in early FL learning. In this paper, we investigate the effects of MLA on FL learning of English in a primary school context, where learning is mostly oral and the linguistic repertoires in the target language are still rudimentary.

200 pupils (88 bilingual or heritage speakers, 112 monolingual German) in German public primary schools were tested at the end of grades 3 and 4 on receptive and productive vocabulary in the L1, German and English as well as on grammatical knowledge in English in standardized tests (BPVS 3, TROG-2). Models of metalinguistic awareness (e.g. Bialystok, 2001) break down MLA into the ability to recognize linguistic patterns and structures (analysis of representations) and from the ability to creatively manipulate and control language (control of attention). MLA analysis skills were assessed via a complexity score gained from a 13-question metalinguistic interview in which each pupil described and explained (cross-)linguistic differences at different linguistic levels. MLA control skills were operationalized in an English phonological awareness (phoneme manipulation) task as well as in an English and German letter fluency task (Bialystok et al., 2014). In addition, we collected cognitive (nonverbal IQ, digit span, executive function) and social (SES, parental education) control variables.

Correlation analyses show relations among the analysis and control component of MLA. For FL outcomes as dependent variables, we ran linear mixed effects regression analyses to account for the hierarchical data structure induced by the control variables. In the best fitting models, MLA analysis is the strongest and most robust non-linguistic predictor of productive vocabulary growth. In contrast, MLA control variables contribute significantly to English grammar skills along with other linguistic and cognitive factors such as English vocabulary and nonverbal IQ. In sum, results indicate that MLA benefits early (oral) FL differentially: Vocabulary development is boosted by metalinguistic analysis, i.e. the ability to segment, compare and select language items, while grammar outcomes benefit from the control component to detect and manipulate rule-based linguistic patterns. We discuss the relative contributions of MLA, linguistic and cognitive factors in early FL learning and sketch implications for the early FL classroom.

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## Quantifying bilingual language experience: which measure best predicts proficiency?

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The amount of language exposure (as a proxy for input) is a determining factor in second and bilingual language acquisition (Paradis 2017). What remains unclear is (1) whether language exposure should be estimated from current or cumulative measures (Unsworth 2016), and (2) whether the language use (output) should also be taken into consideration (Unsworth 2015). (1) is mainly a quantitative question: taking past experience into account might make a language exposure measure more accurate, thereby increasing statistical power (Ellis 2010). (2) has an additional qualitative dimension: some theories do not consider output a determining factor of language acquisition.

We will inform (1) and (2), based on the first study to systematically compare the predictive accuracy of different measures of bilingual language experience in the same group of children, using the same proficiency test. We compared: (3) current exposure, cumulative exposure, current use, cumulative use.

87 children (incl. 46 sequential bilinguals, 5-7 y.old) acquiring English (as the societal and school language, in a monolingual education system) and one of 28 home languages, took part in a sentence repetition (SR) test in English (Marinis & Armon-Lotem 2015). Measures of language experience were derived from parental questionnaires (a simplified version of the BiLEC: Unsworth 2013). Current exposure to English ranged from 11 to 81%.

First, the SR data were analysed by mixed-effect modelling to identify which predictors to take into account alongside language experience (Table 1).

	Coefficient	Std.Error	Z	p
Intercept	-0.8514	0.3944	-2.1587	0.0309
Item Difficulty Level 2	-0.6494	0.1178	-5.5127	0.0000
Item Difficulty Level 3	-1.3936	0.1225	-11.3780	0.0000
Cumulative Exposure to English	0.0206	0.0028	7.3501	0.0000
Socio-Economic Status	0.0919	0.0139	6.6257	0.0000
Backward Digit Recall	0.4863	0.0653	7.4482	0.0000
Input Quality (mother's proficiency)	0.2018	0.0653	3.0912	0.0020
Gender:M	-0.3116	0.0947	-3.2894	0.0010

Table 1: Fixed-effect coefficients of the best mixed-effect model of the Sentence Repetition task (with Item and Participant as random effects). Reference levels: Item Difficulty Level = 1, Gender = F. Socio-Economic Status is based on parental occupation. Backward Digit Recall indexes working memory. Age was not a significant predictor.

Then, alternative models were generated by changing the language experience measure (3). We exploited the information-theoretic approach of Burnham & Anderson (2002) to evaluate the strength of evidence for each model. The model based on cumulative exposure was the best in the set (59% probability: see Table 2).

	Resid. Df	Resid. Dev	Delta	Weight
Cumulative Exposure to English	2468	1758.09	0.00	0.59
Cumulative Use of English	2468	1758.38	1.40	0.30
Current Exposure to English	2468	1757.99	4.10	0.08
Current Use of English	2468	1758.06	5.90	0.03

Table 2: Model selection for the effect of alternative measures of language experience (listed in column 1) on language proficiency (indexed by the Sentence Repetition score) fit to 2477 observations (i.e., total 2468 degrees of freedom) with 3105 null deviance. The weight indicates the probability that the model is the best one in the set. Delta is the AIC difference of a model compared with the best one.

Finally, we compared the other models to the best one, based on AIC differences (expressed as Delta). We followed B&A's rules: Delta < 2: the alternative model has substantial support and should be considered along with the best model; Delta > 4: the alternative model has considerably less support; Delta > 10: there is virtually no support for the alternative model.

The models based on current measures have considerably less support than the best model (Delta > 4) - see Table 2. The small difference between the model based on cumulative use and the best model (Delta = 1.4) indicates that cumulative language use should be taken into account along with exposure. We then demonstrate that adding language use as predictor significantly improves model fit, and that the relationship between cumulative language exposure and use (as predictors of proficiency) is non-linear (based on a Generalised Additive Mixed Model analysis). Implications for language acquisition theories will be discussed.

## Metalinguistic knowledge about the native language and language transfer in gender assignment

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Both German and substandard varieties of Belgian Dutch distinguish between three adnominal genders (masculine, feminine, neuter); Standard Dutch only distinguishes between two (common, neuter). In the gender domain, then, German is more similar to substandard Belgian Dutch than to Standard Dutch. When assigning gender to German nouns with Dutch cognates, however, Belgian speakers of Dutch are strongly affected by the Standard Dutch common vs. neuter distinction, but their gender assignments show little trace of the substandard Dutch masculine vs. feminine distinction (Vanhove 2017).

One of a number of possible explanations for this lack of transfer from the substandard is that many Belgian speakers may lack metalinguistic knowledge about their substandard's gender system, i.e., they may not know that certain substandard morphology reflects a masculine/feminine distinction (cf. Falk et al. 2015). In the experiment I will present, I put this explanation to the test. Forty-five speakers of Belgian Dutch (median age: 61 years), most of whom with little knowledge of L2 German gender, were assigned to one of three conditions. In the first condition, they were taught about gender distinctions in their substandard variety and how they could tell masculine from feminine nouns. In the second condition, they were taught about gender distinctions in their substandard variety, but they were not told how they could tell masculine from feminine nouns. In the third condition, they received true but task-irrelevant information about another substandard feature. The participants then assigned gender-marked German articles to 44 German nouns with Dutch cognates and, in a subsequent task, indicated whether they would use masculine substandard Belgian Dutch articles for 29 of these Dutch cognates.

The L2 gender assignments again showed a strong influence from the Standard Dutch neuter vs. common distinction: the participants overwhelmingly assigned neuter gender to German nouns with neuter Dutch stimuli (86%) and masculine or feminine gender to those with common Dutch cognates (8%). The L2 gender assignments were considerably less congruent with respect to the substandard masculine/feminine distinction, however, and did not show any appreciable effect of the experimental manipulation. This suggests that metalinguistic knowledge about L1 substandard gender, or lack thereof, is not a major factor in Flemings' L2 German gender assignments.

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## Stress "deafness" can be overcome: Evidence from Second language learners

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Prior studies have suggested that native speakers of languages without lexical stress (e.g. French) are stress "deaf": they have more difficulties encoding L2 lexical stress than speakers of languages with lexical stress (such as German), irrespective of L2 proficiency (Altmann, 2006, Dupoux et al 2008, Kijak 2009). To investigate whether this difficulty in lexical encoding of stress is reflected in a differential perception of stress, and whether this perception can be influenced by experience and musical acuity, the present study set out to explore the categorical perception (CP) of lexical stress in monolingual Germans and French, and French L2 learners (L2) of German. We also considered potential predictors of individual variability, such as musicality (Boll-Avetisyan et al. 2016).

Many prior studies have investigated CP of phonemes by monolinguals and L2L. The present study is the first to investigate CP of lexical stress. We predicted CP for monolingual speakers of German but not of French, and expected variability among L2L.

We created an 8-step lexical stress continuum of the nonword gaba from trochaic to iambic, for a discrimination task with AXB triplets (e.g. 1-1-3, 4-2-2), in which participants decided whether X was equal to A or B. Under CP, but not otherwise, accuracy (i.e., correct responses) should be enhanced if A and B belong to different categories (e.g. if A is a trochee and B an iamb). The MET (Wallentin et al. 2010) measured musical acuity.

For analysis, we used GAMMs (Wood 2006) to model the expected non-linear effects. Accuracy varied across the AB pairs, and AB pair interacted with group (the group factor improved the model fit;  $\chi^2=13.6$ ,  $p<.01$ ): Both German monolinguals and L2L were significantly more accurate than the French with AB pairs from the middle of the continuum (pairs 2-4, 3-5, and 4-6). This effect was, however, less pronounced in the L2L than the German monolinguals.

Hence, L2L performance indicated CP, but it was intermediate between that of the two monolingual groups. Additional analyses with predictors revealed that rhythm acuity explains some of the variance ( $\chi^2=16.6$ ,  $p<.001$ ): Only L2L with lower rhythm acuity showed a peak in accuracy in the middle of the continuum, indicating CP. This outcome may relate to the nature of the discrimination task: Individuals with high auditory acuity performed high at perceiving subtle acoustic changes along the whole continuum, probably exactly because of their auditory skills. This does, however, not need to imply that they have not established separate categories for iambs and trochees.

Our results provide evidence that CP of lexical stress can be acquired by learning an L2. Moreover, they highlight the importance of considering individual differences among L2L for understanding how cognitive factors such as auditory acuity interact with phonology and task demands to shed more light on the mechanisms that guide L2 learning.

## Integrating Content and Language in Higher Education: Examining the Effects on Language Gains

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This study aims to measure the impact of an integrated content and language (ICL) course on the morphosyntactic and lexical knowledge in EFL of university students enrolled in a Dentistry degree at a Catalan university. In a context of exponential growth of English-medium instruction (EMI) programmes in higher education, in which curricular content is taught in a foreign language without explicit attention to form, ICL programmes stand out for pursuing both content and language learning objectives (Unterberger & Wilhelmer, 2011), much in the same vein as CLIL programmes in primary and secondary education. From a language learning point of view, this integrated treatment could be a way to overcome some of the shortcomings of EMI, which has been shown to have a limited impact on the development of specific domains of the L2 competence such as the lexicogrammatical knowledge due to a lack of explicit focus on form and corrective feedback on L2 use (Aguilar & Muñoz, 2014; Ament & Pérez-Vidal, 2015). However, we have little empirical evidence on how ICL instruction fosters the development of EFL in higher education.

We present a longitudinal study of the impact of a one-semester ICL course on the morphosyntactic and lexical knowledge of 53 EFL university students enrolled in the 1st year of a Dentistry degree at the same university, taught in two parallel modalities (i.e., EMI and standard L1 Spanish/Catalan instruction), with a similar L2 competence at the onset of their degree. Both quantitative (L2 tests) and qualitative data (classroom observations and teachers' interviews) were collected. In the L1 modality, EFL learners who received ICL instruction experienced significant progress in terms of morphological and lexical knowledge, but no significant improvement in syntactical knowledge. In the EMI modality, learners experienced significant gains only in terms of lexical knowledge. The inter-group comparison showed that ICL instruction narrowed the gap in L2 competence between the two instructional modalities by the end of the data collection period, particularly with respect to morphosyntactic knowledge. ICL seems to impact positively on the L2 competence of university learners who receive no other type of instruction in EFL but requires a more fine-tuned content-language integration in an EMI context to bolster L2 learning.

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## An exploratory study of the relationship between L1 and L2 fluency behaviour

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Fluency has been brought forward as one of the reliable indicators of L2 proficiency. A review of the literature suggests that L2 proficiency can be predicted from some of the measures of fluency construct (e.g. Iwashita, Brown, McNamara & O'Hagan, 2008; Revesz, Ekiert & Torgersen, 2014; De Jong, Groenhout, Schoonen & Hulstijn, 2015, Huensch & Tracy-Ventura, 2016.) in their performance. Yet, little is known about the role of L1 fluency behaviour in the development of this construct at different levels of proficiency, and in this regard cross-linguistic studies are scarce (De Jong, Steinel, Florjin & Hulstijn, 2013; Huensch & Tracy-Ventura, 2016).

This study aims to explore the possible link between L1 and L2 fluency behaviour, and to understand to what extent this relationship is moderated by L2 proficiency level. Recent studies (Foster & Tavakoli, 2009; Tavakoli & Foster, 2008) have also reported that L2 learners' performance in general and its fluency in particular is affected by task design, but L1 users' performance is not. This has been tested with native speakers of English but not with other languages. This also is hoped to be replicated in the current study with Turkish language as L1.

As such, the data was collected from 42 L1 Turkish-L2 English speakers at a state university in Turkey through a battery of proficiency tests (i.e. Elicited Imitation Task and Oxford Placement Test) and oral narrative tasks. The oral performances were analysed for a number of fluency measures, and a number of statistical analysis were run. The findings suggest that some of the L1 and L2 fluency measures correlate with each other. The findings will be discussed and the implications for L2 practices (L2 testing, L2 research as well as L2 teaching) will be highlighted.

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## Masked Translation Priming with Unbalanced Bilinguals: Exploring the Priming Asymmetry

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Research on bilingual lexical processing with non-cognates and unbalanced bilinguals under masked priming conditions shows a priming asymmetry in lexical decision tasks (LDT) (e.g. Wen and Van Heuven, 2016). Responses to L2 words preceded by L1 translation equivalent primes are faster than when the L1 primes are unrelated. In the opposite direction (i.e. L2 primes – L1 targets), the effects are minimal or significantly smaller. Further, the asymmetry disappears in semantic categorization tasks (SCT), where the participants judge whether the targets belong to a specific semantic category.

One of the theoretical accounts attempting to explain the asymmetry is the Bilingual Interactive Activation + (BIA+) model (Dijkstra and Van Heuven, 2002). Under this approach, the slower processing of the L2 words prevents them from activating their L1 counterparts under masked priming conditions. For the Sense Model (Finkbeiner et al., 2004), a representational asymmetry in the senses known for L1 and L2 words causes the priming asymmetry. The many senses known of an L1 prime can activate the few senses known of an L2 prime, but not the other way around. Further, in SCTs, the semantic category filters the unshared senses, reducing the representational asymmetry and allowing L2 primes to activate L1 targets.

To investigate these theoretical accounts, this research tested 29 adults Spanish-L2 English learners living in an L2-dominant environment. The subjects were tested in two masked translation priming tasks (i.e. Experiment 1, an LDT, and Experiment 2, an SCT). The presentation procedure in both tasks consisted of a mask (e.g. #####) shown for 500 ms, followed by a 60 ms prime, immediately followed by the target. The participants' L2 proficiency, which ranged from Upper Intermediate to Upper Advanced, was considered a continuous variable during the data analysis, which was conducted using linear mixed effects models (Baayen et al., 2008).

The results showed a priming asymmetry in Experiment 1. Responses to L2 targets preceded by their L1 translation equivalents were 38 ms faster than when an unrelated L1 prime preceded the targets. In the L2-L1 direction, the 17 ms priming effect was not significant, but, crucially, word frequency modulated the effect. In Experiment 2, L2-L1 priming was not attested, suggesting that 60 ms were not enough for the L2 primes to activate the L1 targets in a semantic task. Contrary to what was expected, and somewhat surprisingly given the Revised Hierarchical Model's (Kroll and Stewart, 2010) predictions, L2 proficiency did not modulate the priming effects in any task. The results challenge the Sense Model, which is unable to account for the role of word frequency in the LDT, a finding that can be accommodated by the BIA+ since more frequent L2 words would be processed faster and that would allow them to activate the L1 targets.

## The role of experience in the second language speech fluency development in an English as foreign language setting

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In the field of the second language (L2) acquisition, there is a growing consensus that learners' speech can continue to develop as a function of increased practice and experience (i.e., experience effects) (e.g., Flege, 2016), and different types of experience are associated with the development of different subcomponents (e.g., Munro & Derwing, 2008). Although scholars have illustrated various aspects of L2 speech fluency (e.g., Tavakoli and Foster, 2005), little has been known about the role of experience in the development of L2 fluency. In this regard, the current study examines how different types of learning experience are predictive of L2 fluency development over one academic year in a Japanese English as Foreign Language setting.

Speech data of 50 Japanese students was elicited three time points: the beginning (T1), the end of the first semester (T2), and the end of the second semester (T3), and then analyzed by the ratio of pauses in mid/final clauses, the mean length of run, speech rate, the number of repetitions and self-corrections. The amount of learning experience was calculated by the questionnaires collected at the end of the first and second semesters.

The correlation analyses showed that while the total amount of experience was not predictive of the development of L2 fluency for the first semester, the input factor was significantly predictive of their improvement of the ratio of pauses in final clauses ( $p = .033$ ) and mean length of run ( $p = .024$ ) for the second semester. Moreover, the amount of time spent outside activities for the first and second semesters were significantly predictive of the development of the mean length of run for the first semester ( $p = .002$ ) and the ratio of pauses in mid clauses for the second semester ( $p = .001$ ), respectively. On the other hand, the total amounts of experience for the first and second semesters were significant predictive of the number of repairs in an adverse way, showing that the learners who spent much time learning English increased the number of repairs over the time. This dynamic interplay between experience and L2 fluency development will be discussed from the interdisciplinary perspective of L2 performance and cognitive psychology.

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## Patterns of definiteness encoding in L2 Norwegian complex NPs

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Learners with L1s without grammatical definiteness have repeatedly shown to be challenged when acquiring an article L2. Nordanger (2017), however, documented that both learners with an L1 not exhibiting grammatical definiteness (Russian L1) and learners familiar with the functional category from the L1 (English L1) are challenged at initial stages by definiteness in Norwegian: Russian L1 learners by the indefinite article, and English L1 learners by the definite inflection. The present paper zooms in on these patterns and explores them by looking at seven learners' use of complex NPs. Premodified definite, demonstrative, and possessive NP constructions in Norwegian exhibit double definiteness, i.e., the NP is marked by articles/determiners and inflection. These constructions equip learners with encoding options and thereby provide a unique window into investigating the relationship between structural aspects of definiteness and aspects related to the identification of semantic/pragmatic context. If the learners prefer one encoding type to the other, omission may be associated with the structural level.

Pear Story narratives written by four Russian L1 and three English L1 learners were collected in three data points within the scope of one year. In this paper, complex NPs employed by the learners when retelling the same events have been subject to a qualitative analysis. This approach permits a comparison of the L2 solutions both intra and inter-individually over time.

At least two patterns are detected. There is a propensity for L1 Russian learners to depend more on inflection than determiners alone, while the English L1 learners seem to prefer determiners to inflection:

Russian L1 learner: Han så rundt: tre gutt-ene var på vei-en

[He looked around: Ø three boys-DEF were on road-DEF]

English L1 learner: ...og den tre andre gutter gikk den andre vei

[...and the three other boy-s-Ø went the other way-Ø]

Similarly, English L1 learners may omit inflection in possessive constructions, while Russian L1 learners oversupply definite inflection.

In line with research pointing out the impact of L1–L2 structural competition on L2 NP encoding (Austin et al., 2015; Trenkic & Pongpaioj, 2013), the present findings indicate that L2 production is vulnerable to grammatical encoding not corresponding to structural features in the L1, particularly in early stages of the learning process, regardless of a functional L1–L2 similarity.

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## Variables affecting early foreign language learning: Evidence from bilingual preschools

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Even though early bilingual foreign language learning has been promoted in Europe for more than a decade now, programs for young learners are still scarce, and more empirical investigation into L2A in such contexts is needed.

This paper presents evidence from a longitudinal European project (ELIAS: Early Language and Intercultural Acquisition Studies) in 10 bilingual preschools (L2 English). First results (Kersten et al. 2010) showed that the quality of L2 input, as well as the duration and the intensity of L2 contact, present strong predictors for early grammar and lexical comprehension.

For the current study, the data of 389 children and 21 preschool teachers were reanalyzed using multilevel modeling and structural equation modeling to shed light on the interplay of additional learner-internal and learner-external factors affecting early L2A. The focus of the study was to investigate to what extent receptive L2 vocabulary and grammar are affected by learner-internal variables such as age, gender, and language background, as well as external factors such as the socioeconomic background, early literacy activities in the family, L2 contact duration, L2 contact intensity, and the quality of the L2 input, which was operationalized using the IQOS rating scheme (Input Quality Observation Scheme, Weitz et al. 2010). The IQOS quantifies verbal and non-verbal L2 scaffolding techniques. Data were elicited using the BPVS II (Dunn & Dunn 1997) and the ELIAS Grammar Test (Kersten et al. 2010), a parent questionnaire, as well as participant observation and videography for the program variables.

The time nested data structure was analyzed statistically using linear multilevel modeling and structural equation modeling. Preliminary results show a strong increase of children's receptive L2 vocabulary and grammar test results. These changes are predicted by the duration and the intensity of contact time to the L2 and the amount of scaffolded L2 input. Additionally, the quality of the L2 input predicts the rate of L2 grammar comprehension, and early literacy activities in the family predict receptive L2 vocabulary changes. In contrast, no statistical effects were found for the direct effects of children's socioeconomic as well as language background, and gender. Further moderator and mediator analyses concerning the interplay of the different variables will be carried out. We will discuss why certain variables might affect receptive L2 grammar and vocabulary to a different extent.

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## High and thin tones in speech and gesture: Convergence in Turkish-Swedish bilinguals' metaphors for musical pitch

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Bilingualism studies seek to elucidate the nature of the bilingual system focusing on the directionality and effects of crosslinguistic influence. The available evidence points to a non-separability of the systems shown in discussions of convergence (the increasing similarity between a bilingual's languages), manifested as simplification, expansion or redistribution of preferences (Alferink & Gullberg, 2014). Whereas such research mostly focuses on literal language use, the present study examines bilingual use of metaphors for musical pitch. We ask whether bilinguals with (spatially) incompatible metaphors in their languages vary how they conceptualise and communicate about pitch, or display evidence of convergence.

Languages of the world use various metaphors for musical pitch. Languages like Swedish may describe musical pitch as 'high' or 'low'; Turkish instead describes it as 'thin' or 'thick'. We investigated how Turkish-Swedish functional bilinguals living in Sweden described pitch metaphors in speech and gesture in a production task. Participants listened to pairs of sung notes differing only in pitch, and described each pair to a Swedish- or Turkish-speaking confederate performing a stimulus-matching task (language order counter-balanced). Speech was coded for metaphor used and co-occurring gestures for movement targeting height (up/down), location (high/low), and hand-shape for thickness (flat/curved). We hypothesised that a) participants would mainly describe pitch using language-specific metaphors; b) co-speech gestures would represent the physical dimensions invoked by speech (i.e. vertical gestures for height vs. curved gestures for size). However, since recent findings indicate that the 'height' metaphor is sometimes also used in Turkish, whereas the 'thickness' metaphor appears to be unavailable in Swedish (authors, in prep.), we also hypothesised that convergence would occur with the 'height' metaphor (likelier increase in bilingual Turkish), but not with the 'thickness' metaphor (in bilingual Swedish).

The speech results show that participants generally used language-specific metaphors in each language ('height' and 'brightness' in Swedish; 'thickness' and 'height' in Turkish). However, as predicted, the 'height' metaphor was significantly more frequent in Turkish trials following Swedish trials than the 'thickness' metaphor in Swedish trials. Swedish descriptions of pitch were mainly accompanied by gestures indicating physical height, and Turkish descriptions by size gestures. But vertical gestures also occurred with 'thickness' in Turkish. In such cases, speakers thus appeared to communicate two distinct mappings of space to pitch in speech and gesture. The observed patterns are indicative of unidirectional convergence or redistribution of metaphor preferences in Turkish speech and gesture under the influence of Swedish. Our findings thus support the notion of non-separability of bilinguals' languages in non-literal language use.

## Statistical language learning from consistent and inconsistent input: Is there a bilingual advantage?

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Bilinguals often outperform monolinguals in statistical language learning, which might be due to bilinguals' enhanced phonological memory or cognitive control skills (Bartolotti et al., 2011). Recent work suggests that bilinguals' advantage is especially prominent if the input contains inconsistencies (de Bree et al., 2016; Poepel & Weiss, 2016). The current study aims to (1) test whether the bilingual advantage is indeed stronger when the input is inconsistent and (2) whether bilinguals' statistical learning advantage is due to enhanced phonological memory and cognitive control. Children and adults were investigated, to see if the same patterns were found across groups.

In study 1, 21 Dutch monolingual and 20 bilingual (Dutch+other language) 7- to 10-year-olds were tested on non-adjacent dependency learning in two experiments. In the first, the input presented was fully consistent, while, in the second, the input contained inconsistencies in 14% of the trials. To assess phonological memory and cognitive control, a nonword repetition and a flanker task were presented. Linear mixed-effect logistic regression analysis showed that bilingual children outperformed the monolingual children in the consistent experiment. In the inconsistent input experiment, no effect of group was found, and performance was below chance level in both groups. While statistical learning performance was related to phonological memory – at least in the bilinguals, it did not explain bilinguals' enhanced statistical learning.

In study 2, 23 monolingual and 19 (Dutch+other language) bilingual adults performed the same experiment as in study 1, as well as nonword repetition and cognitive control tasks (Trail Making Test). Linear mixed-effect regressions showed that the bilinguals outperformed the monolinguals in the inconsistent input experiment. No effects of group were found in the consistent input experiment. Furthermore, as in study 1, statistical learning was related to phonological memory in the bilinguals, but did not explain bilinguals' outperformance in the inconsistent experiment.

Taken together, these results support the idea that bilingualism has a positive effect on statistical learning. They also suggest that this effect may vary with age and type of input. Phonological memory and cognitive control do not seem to play a key role, even though significant relationships between statistical learning skill and phonological memory were found in the bilinguals.

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## Operationalizing teacher input: Empirical evidence on the effect of input on the L2 acquisition of young learners

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The role of teacher input and interaction in SLA has been the object of increasingly rigorous investigation in the field of instructed second language acquisition over the past two decades (Ellis & Shintani 2014). Within an interactionist framework, concepts such as comprehensible input combined with a focus on negotiation of meaning and corrective feedback in the interaction with an L2 learner, as well as the support of output, are seen as necessary conditions to support SLA. Research into very young learners has found significant positive effects of input quality on lexical and grammatical L2 comprehension (Weitz et al. 2010). Elaborating on these findings, the project presented here seeks to investigate the effect of L2 teacher input characteristics on the acquisition of L2 English in primary school.

To operationalize techniques relating to comprehensible input, interaction, and the fostering of output in the teachers' L2 talk, a rating scheme was constructed (TIOS – Teacher Input Observation Scheme), and was subsequently tested for interrater-reliability with four raters using Cohen's kappa, and for internal consistency using Cronbach's alpha. The rating scheme contains items concerning characteristics of verbal and non-verbal input, the support of student output, corrective feedback techniques as well as task characteristics.

In a second step, eight videotaped lessons of four teachers in different EFL programs, i.e. two regular EFL teachers and two immersion teachers of 3rd grade classes, were rated using the TIOS. The students of these teachers (N=72; regular EFL: n=36, immersion: n=36,) were tested with the help of the BPVS III (Dunn et al. 2009) and the ELIAS Grammar Test II (Kersten et al. 2010) for lexical and grammatical L2 comprehension.

Statistical data analysis is currently being carried out using correlation and regression analyses to investigate possible differences between regular EFL and immersion teachers' input techniques, and to find out which techniques specifically predict the students' lexical and grammatical L2 comprehension. Results will be discussed with reference to findings within the cognitive-interactionist framework.

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## Examining headedness in native and non-native grammars: Insights from compounding in L1 and L2 Brazilian Portuguese

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Investigating the interpretation of morphology in compounding offers insight into the contrast in the representation of headedness in L1 and L2 grammars. While inflectional morphology in Noun-Noun (NN) compounding has received considerable attention in L1 and L2 research, only one previous study has examined derivational morphology in NN compounds, focusing on L2 Spanish speakers' interpretation of the derivational affix *-ito* ('little') in Spanish (Liceras & Klassen 2017). These authors found that L2 Spanish speakers interpreted *-ito* as only affecting the noun to which it is attached - regardless of whether it is the head or the modifier - while the L1 Spanish speakers attributed a privileged status to the head such that the attachment of *-ito* to the left-most noun (head) affected the whole compound. Building on this, in this study we investigate the interpretation of the derivational affix *-inho* ('little') in NN compounds by L1 and L2 Brazilian Portuguese (BP) speakers.

Similar to Spanish, most BP NN compounds are left-headed (Rio-Torto & Ribeiro 2012). Though it is clear that inflectional morphology (such as the plural affix) can only be attached to the head (1 vs 2), whether the diminutive (dim) *-inho* is considered grammatical when it is attached the modifier (4) or both nouns (5) is unclear, as is the interpretation of such compounds.

- (1) *cartões-jovem* (cards young, 'youth cards')
- (2) *cartão-jovens* (card youngs, 'youths cards')
- (3) *cadeirinha bar* (chair[dim] bar, 'little bar stool')
- (4) *cadeira barzinho* (chair bar[dim], 'little bar stool')
- (5) *cadeirinha barzinho* (chair[dim] bar[dim], 'little bar stool')

In this study, 66 L1 speakers of BP and 47 intermediate-advanced L2 learners completed a picture selection task in which the attachment of *-inho* in the NN compound was manipulated to form four conditions (NN, D[dim]N, ND[dim] and D[dim]D[dim]). Results show that all speakers had significantly different interpretations of the compounds according to the attachment of the diminutive ( $p < .001$ ) (Graphs). The L1 BP speakers systematically interpreted the diminutive as only affecting the noun to which it was attached, not allowing the diminutive on the head to have scope over the whole compound. While the L2 BP speakers' interpretations generally patterned with the L1 speakers, there was significantly more variation in the L2 data ( $p < .001$ ).

The L1 BP findings are surprising given that previous work has shown that L1 Spanish speakers assign a privileged status to the head, while the L1 BP speakers individualize the attachment of *-inho*, suggesting that diminutives in Spanish behave more like inflection than those in BP. The fact that the L2 speakers display significantly more variation in their interpretations is consistent with previous findings in L2 Spanish in that the representation of morphology in compounding is different in L1 and L2 grammars.

## Age of first bilingual language exposure as a predictor of literacy skills: Evidence from a longitudinal CLIL study with dense time serial measurements

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The rapid expansion of (pre)primary schools that offer intensive bilingual programs throughout Europe calls for a systematic and critical examination of what crucially influences the foreign language (FL) abilities of young classroom learners, and how we can exploit an earlier starting age more effectively in immersive school contexts (see e.g. Dalton-Puffer & Smit, 2013; Muñoz, 2015). This study explores the impact of age of first bilingual language exposure on the writing development in children who are educated in bilingual schools as well as the role of intensity of language exposure in (pre)primary instruction in English. We studied children who received 50/50 bilingual instruction in German and English (so-called ‘partial CLIL’ programs) as well as children in ‘minimal CLIL’ programs with almost uniquely monolingual German instruction (90% German, 10% English). In the cross-sectional part of the study at the end of primary education (age 12) we assessed the German and English writing skills of 251 students who vary in their age of first CLIL instruction (5, 7, 8, 9 or 11), 231 of whom were from German-speaking homes (new to English), while 20 were from English-speaking homes (new to German). For 91 of them data collection occurred four times annually over eight school years (ages 5-12), via narrative and argumentative essays. In the data analysis, quantitative methods (linear/logit mixed models and generalized additive models) were combined with individual-level qualitative data, with a view to tapping age effects on L2 progress *within* programs (rather than *between* programs). Results showed that amount of target language exposure and bilingualism were more predictive of the language learning trajectories under investigation than starting age. The dense time serial measurements revealed the learners’ individuality in the L2 learning process and enabled us to identify meaningful, consistent patterns of individual differences.

Our findings provide educators, policy makers and parents with information concerning choices about when to begin FL instruction via bilingual education without compromising outcomes or wasting resources. For SLA researchers, the optimal starting age question is of interest in immersive school contexts, since more intensive CLIL programs constitute a hybrid form between naturalistic L2 acquisition (where a general ‘earlier=better’ trend emerges) and instructional FL contexts (where usually no age effects favoring early starters are manifest).

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## Subordinate Clauses in the Input and Output of Early Language Learners of Swedish as a Foreign Language

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In Usage-Based Approaches of language, frequency in the input is regarded as one of the most important factors of language development (see for instance Ellis, 2013 and Goldberg, 2006). Yet, there is still a lot unknown when it comes to Second Language (L2) learner input. Furthermore, it is usually complicated to investigate the role of input in the production of L2 learners. L2 learners often have diverse backgrounds and receive different types and amounts of input. Therefore, it is not straightforward to study the role of the input in natural second language development in an SLA context. Sometimes artificial languages have been used as an attempt to overcome these problems, but those have indisputable restrictions.

In this study, I propose (following Dimroth, Rast, Starren and Watorek, 2013) that beginning Foreign Language learners, who are learning a language completely unknown to them at that point, form an interesting group to study the relationship between input and output. Firstly, the learning setting is a relatively controlled setting. Secondly, due to the fact that learners have no prior knowledge and no or little contact with the language outside the classroom, the input they receive is surveyable.

In the current study, we investigated subordinate clauses in written input and output of 21 beginning learners of Swedish as a Foreign Language in Belgium (L1 Dutch). The written input during the first year of language development was compared to the written assignments they produced during that same period.

The results show that the (relative) frequencies of subordinate clauses in learner production reflect the frequency of subordinate clauses in the input. However, interesting differences were discovered when we looked at other aspects, such as the subordinate clause types used, word order and internal structure of clauses, the position of subordinate clauses, the level of embedding and the pragmatic function of subordinate clauses. It is argued that, although it is important to look at input frequencies, we should also look beyond frequency. In the study of learner input, other factors besides frequency, such as saliency and form-to-function mapping are not to be neglected.

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## Identifying the role of simultaneous activation of two languages and dominance patterns in bilinguals' metalinguistic awareness

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Several studies argue for a bilingual advantage in metalinguistic awareness (MA) 1. However, while evidence in favor of an advantage in tasks requiring control (e.g. form-function separation) is rather solid 2, the bilingual effect on tasks of linguistic analysis (e.g. grammaticality judgements) is controversial [3]. Moreover, it remains unexplored how MA interacts with dominance effects. The present study aims to boost bilinguals' language activation by means of a bilingual-mode setting on a graded grammaticality judgment task and to analyze its effect on MA.

Forty Greek-Italian bilingual children (age-range: 8-12 yrs.) from Athens participated. Dominance was assessed based on a vocabulary test, a sentence repetition task, and background questionnaires. In a GGJT, children were asked to judge the relative (un-)acceptability of Italian sentences that describe some pictures, using a five-point 'smiley-face'. The same set of 8 target sentences was presented following three different training sessions. In one session, the (un-)grammatical sentences appeared in isolation (mat1), in another together with their (un-)grammatical counterparts in Italian (mat2), and in another together with their (un-)grammatical counterparts in Greek (mat3). The sentences targeted different syntactic structures (subject-verb agreement and number, gender and case with clitics).

A 2x3 ANOVA with ratings (from 1-5) as dependent variable and grammaticality and training session as independent ones revealed an interaction of grammaticality x training session ( $F(2)=4.43, p=.01$ ). Incorrect sentences were judged more acceptable after mat1 and mat2 than after mat3. A 2x4 repeated ANOVA with ratings as dependent variable and grammaticality and type of structure as independent ones showed a significant grammaticality x structure interaction ( $F(3)=2.9, p=.04$ ). Sentences with incorrect clitic-case and number were judged more acceptable ( $M:1.64$  and  $1.63$ , respectively) than sentences with incorrect clitic-gender ( $M:1.55$ ) and subject-verb agreement ( $M:1.39$ ).

The results show that a bilingual-mode setting affects GJT positively. Explicit knowledge in the non-dominant language benefits from the simultaneous activation of MA skills in the dominant one. We will discuss the results related to the type of structure in terms of a different sensitivity to core syntactic violations (subject-verb agreement) vs. violations at the syntax-discourse interface (clitics, with different sentence-picture matching possibilities for gender and number vs. case).

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## Coming to an understanding: Miscommunication management in the course of English/French tandem interactions

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The paper aims at expanding the analysis of communication breakdowns and resolution strategies observed in the bilingual data contained in the SITAF tandem corpus, collected at the Sorbonne Nouvelle University. The SITAF project gathered video and audio recordings from face-to-face conversational exchanges held by 21 pairs of students, with each such ‘tandem’ consisting of a native speaker (NS) of English and a native speaker of French. The tandems performed collaborative semi-spontaneous conversation tasks in both languages at two stages during their tandem program: the first session was recorded a week after their first encounter and the second occurred 3 months later. With its largely unscripted L1-L2 productions, the corpus offers ample opportunities for various types of analyses of NS-NNS interactions, including – following Dascal’s 1999 approach – studies of communication breakdowns, their triggers and resolution. In a pilot study based on the analysis of misunderstandings detected in the first session (Horgues & Scheuer, 2017), we found that: i) communication breakdowns mostly – but not exclusively – originated in NNS speech, ii) the most frequent triggers were related to lexical and/or pronunciation issues and rarely to syntax or pragmatics, iii) there were more misunderstandings in the English than in the French conversations, iv) comprehension issues were resolved through verbal, oral and visual strategies, and in a highly empathetic and collaborative manner consistent with the tandem learning environment. Indeed, tandem learning is characterized by a relatively non-hierarchical and reversible relationship (Brammerts & Calvert, 2003), encouraging “over-charitable” cooperation (Varonis & Gass, 1985). Our research question now is whether there is evidence that tandem practice allows NS-NNS participants to understand/make themselves understood more easily with time. By taking a longitudinal perspective (Session 2 – same 21 tandem participants 3 months on), we would thus like to test the hypothesis that, with increased familiarity and L1/L2 interactional experience, the frequency of detectable misunderstandings will decrease and the repertoire of resolution strategies will expand.

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## Affix difficulty: To what extent do hierarchies of affix type predict knowledge of derived forms?

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Gaining derivational knowledge is an important part of second or foreign language lexical development. Since many English words include affixes, learning these word parts can enlarge learners' receptive and productive vocabulary. In an attempt to relate learning derived words to affix type, two hierarchies of affix difficulty have been developed. Bauer and Nation (1993) classified English derivational and inflectional affixes into seven difficulty levels according to the following criteria: frequency, productivity, predictability, regularity of the written and spoken forms of the base, regularity of the spelling and spoken form of the affix, and regularity of function. Sasao and Webb (2017) classified 118 derivational affixes into three difficulty levels (beginner, intermediate, and advanced) based on learners' knowledge of the forms, meanings, and functions of these affixes.

This study seeks to answer three research questions: (1) To what extent do the two hierarchies differ? (2) To what extent are the levels within each hierarchy valid? and (3) Which hierarchy is a better predictor of derivational knowledge? Derivational knowledge was assessed by a self-made test that included 60 derived words of VST base words from 8 frequency levels (Laufer & Yohanan, 2017), e.g. *poorly* derived from *poor*. The test items were classified twice, according to the two affix difficulty hierarchies.

Seventy-nine Israeli learners completed the derivatives test. Correlational analysis and repeated measures were used to compare the two hierarchies in the entire test and at each base word frequency level. In addition, a multiple regression analysis determined which hierarchy was a better predictor of knowledge of derived forms.

The results showed that there was a high and significant correlation between the two hierarchies. When responses to all items on the test were examined in relation to each hierarchy, the levels in Sasao and Webb's and Bauer and Nation's hierarchies were significantly different in the expected direction in 9 / 10, and 6 / 10 comparisons, respectively. However, the regression analysis showed that neither hierarchy was a predictor of the learners' ability to recognize the meanings of the derived forms. Overall, the results provide the greatest support for Sasao and Webb's hierarchy, but also suggest that affix difficulty is not the most important factor in recognizing the meaning of derived words.

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## Investigating the long-term effects of early foreign language learning from elementary school into 9th grade

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Early foreign language learning has received a significant boost in the European Union. In Germany, six states have introduced foreign language education in Year 1 in contrast to other states which start in Year 3. Current evaluation studies in Germany attest a positive development to English proficiency development in elementary school across all four skill areas (Engel et al. 2009; Barucki et al. 2015). However, research on the onset of foreign language learning has shown that late starters outpace and outperform early starters (Muñoz 2006; Pfenninger 2014; Jaekel et al. 2017).

The purpose of this study is to better understand the impact and the difference early foreign language learning commencing in Year 1 and Year 3 of elementary school has on receptive language development. Furthermore, individual learner characteristics are taken into account in statistical analyses to control for their impact.

Two cohorts of students (N=1521), one starting English in Year 1 (n=706), the other in Year 3 (n=815) were assessed in Years 5, 7 and 9 with standardized and reliable tests (IQB; Engel et al. 2009). Only students who participated in all three assessments were included in analyses. Listening and reading proficiency were scaled using separate IRT Models within each year while pooling the cohorts. An autoregressive path model was used to observe the relationships between the years and between the two cohorts.

Results show a curvilinear development of receptive language proficiency from Year 5 to Year 9. Early starters (Year 1) outperformed late starters (Year 3) in Year 5 both in listening and reading but fell behind in Year 7. In Year 9 the early starters again performed significantly better than their later starting peers. Potential reasons for this development could be related to issues with the transition from elementary to middle school.

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## How do frequency, granularity, and proficiency interact in the L2 acquisition of alternations? Evidence from German-English syntax and morphophonology

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It is well-known that frequency plays a role in L2 acquisition, in the general sense that often what is most frequent is learned first. Among usage-based approaches, however, there is less consensus about how schema knowledge comes about. One debated issue is the degree of granularity of ‘what is most frequent’, and whether L2 learners start with item-based knowledge and gradually form more abstract schemas (a bottom-up process, as e.g. in Tomasello (2003) for L1A) or if they first form larger generalisations and then refine them (a top-down process).

In the present paper we will present two empirical studies of alternations to bear on this issue, from two different areas of grammar. Both phenomena present evidence that abstractions, in the sense of ‘broader generalisations’, arise early in L2 acquisition, but that relevant aspects of pertinent semantic or formal representations are less fine-grained than in the target language (cf. Ambridge et al. 2014). The first study deals with the catenative verb construction consisting of a ‘catenative verb’ and a non-finite complement, which can be a to-infinitival or a *-ing* complement (e.g. *She refused to go, Tom enjoys reading*). A sentence completion study with 1,069 German learners of English from different proficiency levels reveals overgeneralisation of the *to*-infin. complement, but not of the *-ing* complement, especially by low proficiency learners. In the target language, the *to*-infin. complement schema has a higher type and token frequency than the *-ing* complement schema.

The second study looks at stress alternations in complex words ending in *-ory* (e.g. *exploratory* vs. *explóratory* vs. *explorátory* > *explóre*). In a reading study with 30 German learners of English from different proficiency levels (N = 1,200) we find that, unlike other stress patterns, stress on the penultimate syllable before the suffix (e.g. *explóratory*) is substantially overgeneralised by low-proficiency learners. In the target language, penultimate stress has a higher type and token frequency in *-ory* words than other stress patterns.

In both cases, we argue that learners first start off with a broad schema (for the *to*-infin. construction and for stress in *-ory* words) and only later develop subschemas for the less frequent alternantes, taking into account more fine-grained structural properties that seem unavailable at lower proficiency levels. In the case of the *-ing* construction, these are semantic properties; in the case of non-penultimate stresses in *-ory* words, these are more fine-grained structural properties (e.g. syllable structure).

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## Ageing, bilingualism and language processing: A study of morphological processing in older adults

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Speaking and practicing more than one language has been argued to positively affect cognitive functioning compared to speaking just one language. These effects are reported also in case of a non-native late-learned second language (L2), in which speakers are less proficient compared to their L1. It remains unclear, however, whether and how linguistic skills of L2 speakers change with age. Is a late-learned L2 subject to more decline than a native language or does performance of older bilinguals become more native-like due to their life-long experience? We examined what impact ageing has on language performance, specifically on morphological processing, in both L1 and L2 speakers. Studies with younger adults have reported differences between native and non-native late bilingual speakers with regard to the processing of polymorphemic words. One specific case is priming effects from derived vs. inflected word. For younger L1 and L2 speakers Jacob, Heyer, and Veríssimo (in press) reported a clear contrast with derivational (but not inflectional) priming fully maintained in L2 processing.

We investigated older L1 and L2 speakers' masked-priming effects for derived and inflected word forms of German and compared them to results from younger speakers (mean ages: 62 vs. 24). We found an effect of ageing on general measures of language performance, with slower response latencies and higher accuracy scores for older individuals, for both the L1 and the L2 groups. The priming patterns, however, revealed a robust native/nonnative (L1/L2) contrast irrespective of age. While both L1 and L2 speakers showed significant derivational priming, only the L1 speakers demonstrated inflectional priming. Apparently, morpho-syntactic processing as revealed by inflectional priming effects functions efficiently in the L1, but not in a late-learned L2. The robust derivational priming effect that was seen in both younger and older L2 speakers, on the other hand, indicates intact morpho-lexical processing of derived forms. We conclude that general performance is affected by aging in both L1 and L2, whereas differences between native and non-native processing are more profound and persist with advancing age.

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## Validation research on implicit and explicit knowledge: A research synthesis

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What types of knowledge do second-language (L2) learners use to communicate fluently? How do different types of instruction affect L2 learners' knowledge representations? Questions about implicit (unconscious) and explicit (conscious) knowledge of language and how they interface are fundamental to second language acquisition (SLA). A necessary first step towards answering these long-standing questions, however, is to develop valid and reliable measures of implicit and explicit knowledge. In this talk, we will present the findings of a large-scale psychometric project, aimed at synthesizing 12 years of validation research since Ellis's (2005) landmark study. We will present the results of a series of confirmatory factor analyses, designed to test whether it is possible to obtain relatively pure measures of L2 learners' implicit and explicit knowledge. These models will compare the two prevailing theoretical positions in the literature—the default Ellis (2005) model (two factors: implicit and explicit knowledge) with a rival Suzuki (2017) and Suzuki and DeKeyser (2017) model (three factors: implicit, automatized explicit, and analyzed explicit knowledge). The outcome of these factor analyses will validate a battery of nine linguistic knowledge measures—oral production, elicited imitation, word monitoring, self-paced reading, auditory and written, timed and untimed grammaticality judgments, and the metalinguistic knowledge test. This will help generalize the findings of previous studies, which investigated only a subset of these measures, to a new sample of 140 participants (85 of which have been run as of March 1). The results further inform the question of whether automatized explicit knowledge, one of the foundations of fluent language use (DeKeyser, 2001), can be distinguished using simple behavioral measures. The findings of this project can advance our understanding of the cognitive bases of SLA by making long-standing claims about the interface between implicit and explicit knowledge testable (Hulstijn, 2005).

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## (Re-)Visiting a poor cousin: Orthographic competence in German monolingual and bilingual students

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We know very little about the (development of) orthographic competence in monolingual versus bilingual students. On the one hand, this could be attributed to the fact that in both linguistics and L2 research and teaching, we are still dealing with a long-standing primacy of speech over writing (e.g., Cook, 2005). On the other hand, international (large-scale) assessments of students' competencies rarely comprise the measurement of orthographic competence due to methodological challenges.

An often cited German large-scale study, which investigated various linguistic competencies (including orthography) in monolingual and bilingual students, is the DESI study (DESI-Konsortium, 2006). Surprisingly, orthography was the only subfield in which bilingual students outperformed German monolingual students. This finding contrasts with smaller studies from linguistics which found that bilingual students do not generally outperform monolingual students, only (if even) regarding some but not all orthographic strategies (i.e., phonographic, syntactic, etc.) and only during certain stages of language development (Bredel, 2012). This controversial picture leads to the present study, which sets out to re-analyse a large corpus of texts of monolingual and bilingual students in Germany (MULTILIT corpus; Schellhardt & Schröder, 2015).

The MULTILIT corpus comprises a variety of written texts from over 160 monolingual and bilingual students from four different grades (5th, 7th, 10th, and 12th grade). It makes possible the investigation of three main research questions: 1) Do bilingual students really outperform monolingual students (as found in the DESI study)?, 2) In which areas of orthographic competence (i.e., phonographic, syllabic, syntactic, etc.) do bilingual students differ from monolingual students?, and 3) Are differences in orthographic competence tied to developmental aspects? Answers to these questions are relevant for the development of L2 theories which go beyond spoken language and are interested in how the bilingual mind might make use of specific orthographic strategies when writing in a second language.

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## Complexity, Accuracy and Fluency in the Oral Production of L1 French Young Learners of EFL in a Minimal Exposure Context

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Young learners of English as a foreign language (EFL) in minimal exposure contexts have received notably less attention in second language learning research than older learners and children in massive exposure L2 contexts (Collins and Muñoz, 2016). The little empirical evidence available to date with regard to the development of their oral skills in EFL seems to indicate that proficiency and performance indicators such as complexity, accuracy and fluency (CAF) do not progress simultaneously, with possible trade-offs between the three dimensions and a strong interaction from contextual and individual learner factors (Bret Blasco, 2014; Djigunović, 2017). Moreover, the repeated performance of an oral task appears to increase young learners' oral fluency but has a limited impact on complexity and accuracy measures (Sample and Michel, 2014). Nonetheless, the type of task and its processing demands may take a toll on the fluency of performance in L2 English (Robinson, 2001).

The present study seeks to explore the longitudinal development of CAF in the oral production of 8 L1 French young learners of EFL enrolled in a secondary school in the suburbs of Paris (France). The learners were aged 10-11 at the onset of the data collection and had had an approximate previous exposure to EFL of 46 hours. A picture-based narrative was elicited at intervals of approximately 3 months, over the period of an academic year. Asymmetries in the progression of CAF were noticeable after 6 months, with a trend for improvement in terms of syntactic complexity, which seems to be prioritised over accuracy and fluency. The individual trajectories were also analysed for additional insight into developmental patterns. We discuss these findings in relation to task type and trade-off effects and gauge their implications for second language research and teaching.

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## The earliest stages of L2 learning: A behavioral investigation of age and memory

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Learning abilities related to declarative and procedural long-term memory have been extensively investigated as individual differences in adult L2 learning in the last ten years (Morgan-Short et al., 2014; Hamrick et al., 2018). Although research in the area of specific language impairment has started to elucidate the role of these cognitive predictors in child populations, no behavioral studies to date have attempted to compare how L2 learning is modulated by long-term memory in learners of different ages.

The present laboratory study addresses two main research questions: (1) the extent to which children and adults differ in the learning of linking rules between thematic roles and morphosyntax in a novel L2; and (2) the extent to which declarative and procedural learning ability modulate L2 learning in the two groups over the course of L2 practice.

In the context of a computer board game in incidental instruction conditions, 40 L1 Italian 8-9 year olds and 36 L1 Italian young adults were individually aurally exposed to the artificial language BrocantoJ (a version of Brocanto, Friederici et al., 2002; Morgan-Short, 2007) over three sessions on three consecutive days (264 sentences in total). Behavioral standardized memory tasks, vocabulary learning ability, and an alternating serial reaction time task provided measures of visual/verbal declarative and procedural learning ability respectively. Language learning was assessed via an online measure of comprehension, with a subset of the stimuli specifically probing the learning of form-meaning relationships (linking rules between thematic roles and subject/object positions and between thematic roles and case markers).

Generalized mixed-effects models fitted to the online training data revealed that, although adults attained higher accuracy levels and were faster learners compared to children, the two groups did not differ qualitatively in what they learned. Clearer age differences emerged relative to the cognitive variables. Whilst declarative learning ability was a significant predictor of accuracy in both groups, a significant increase in the effect of procedural learning ability over the course of practice was found only in the child group.

Further, whilst there was evidence of a significant negative interaction between declarative and procedural learning ability in children, the interaction was positive in adults. To the best of the author's knowledge, the study provides the first behavioral evidence of a competitive relationship between memory systems in child L2 learning, and its results point towards an important cognitive difference in the early phases of L2 learning in children and adults beyond the evidence offered by L2 attainment measures.

## Exploring the use of explicit grammatical rules with keystroke logging

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In this case study, we discuss the possibility of detecting the use of explicit grammatical rules in written L2 Swedish and L2 English with the help of keystroke logging data and retrospective interviews. The role of the explicit form-focused instruction (FFI) on formal second language learners' explicit and implicit knowledge has been widely studied (e.g. Ellis, R. 2015, Ellis, R. & Shintani N. 2014) but the usefulness of explicit knowledge of the second language is a matter of controversy in the field. In our study, we focus on word order rules which are traditionally central in FFI of Swedish in Finland whereas they are not as prominent in FFI of English in Finland even though mastering word order can be considered a sign of proficiency in both languages.

In the present study, we used keystroke logging which is a method for recording keyboard activities during computer writing (Strömquist & al. 2006). The writing can be replayed in real time, and pausing and revisions studied in detail. In this study, Scriptlog programme was used to record the data. Our hypothesis is that the possible revisions and pauses (e.g. Chenoweth & Hayes 2001) can reveal when a learner uses explicit grammatical rules, i.e. explicit knowledge or monitor (Krashen 1982). The use of retrospective interviews gives additional information whether rules actually are considered by the learners and how they take advantage or decide to apply the rules.

The texts were written by eight learners of Swedish and English in Finland. The preliminary results show that there are differences between learners and between languages in the use of explicit grammar rules. We discuss how these findings help us to better understand the role of explicit knowledge in writing and FFI and what kind of implications this might have on teaching.

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## **L3-sentence processing: language-specific of phenomenon-sensitive?**

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Relative clause (RC) attachment resolution varies cross-linguistically (1; Fodor, 1998) and depending on the matrix clause verb (Grillo & Costa, 2014; Grillo et al. 2015). In addition to the Russian-specific high attachment (HA) and the English-specific low attachment (LA) of restrictive RCs, perception verbs in the matrix clause enable a third, structurally different, interpretation, known as the Pseudo-Relative (PR) reading (2).

(1) Bill saw [[the mother] [of the woman] [that was drinking coffee]].

LA and HA possible: native speakers (NS) of English prefer LA; NSs of Russian prefer HA

(2) Bill saw (what event?) [the mother of the woman that was drinking coffee].

In the PR-reading, the perception verb triggers an event-oriented interpretation, where the subordinate clause modifies the matrix verb as its small clause (SC) object. Grillo & Costa (2014) argue that the availability of the PR-reading facilitates HA resolution in perception verb sentences. In addition, the PR-reading is easier for the parser than the restrictive RC reading.

The experimental study involves Russian (HA), English (LA), German (HA) and French (HA). The target population is L3 speakers of English. The subjects share the same L1-Russian but differ in their L2 – experimental Group 1: L1 -Rus/L2 -Ger/L3 -Eng; Group 2: L1 -Rus/L2 -Fr/L3 -Eng. In French, all three interpretations are possible for the same surface string (3), while in Russian, English and German, the PR-reading triggered by the semantics of the perception verb requires an overt change of structure as in (2).

(3) Mary a écouté [SC la mère de la femme qui parlait de cosmétiques]. (French, PR-reading).

Mary heard the mother of the woman who talked about cosmetics.

This study investigates the processing strategies applied by adult L3 speakers in English and compares the results to the existing data of adult unbalanced bilinguals in Russian and English. In a self-paced reading experiment (Linger), the respondents read a set of sentences and answered a comprehension question. The stimuli manipulated perception and non-perception matrix verbs as well as a pragmatically-based gender bias.

Findings suggest that the perception verb facilitates HA in all groups of subjects in all languages and its effect is significant. Still, Group 2 shows a stronger tendency to preserve L1- and L2-like HA in their L3 (LA-language) than Group 1. A group effect in the analysis indicates that multilingual speakers show overall language-specific RC-attachment preferences. In sum, English remains a LA-language with all predicates; in Russian, the perception verb facilitates but does not exhaustively explain HA. When there is cross-linguistic variation between the target languages, adult bilinguals and trilinguals show target language-like interpretation patterns.

## The differential impact of explicit instruction on syntactic and syntax-discourse properties

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Over the last decades, generative SLA research has shown that the specific domains involved in a given linguistic property affect how hard that property is to acquire. For example, there is plenty of evidence that syntactic properties are easier to acquire than properties at the syntax-discourse interface, which often cause problems even to near-native speakers (Sorace, 2011). From an instructed SLA perspective, these findings lead to the following question: Does the effectiveness of explicit instruction vary according to the linguistic domain(s) involved in the target structure?

To shed light on this question, which is still unexplored, this study investigates the impact of explicit instruction on the development of two types of properties in L1 European Portuguese (EP)-L2 English: a syntactic property – the ungrammaticality of free inversion in English – and a syntax-discourse property – the unacceptability of locative inversion with verbs that are not informationally light, notably change-of-state unaccusative verbs and non-redundant unergatives (i.e. unergatives that do not express a prototypical activity of the subject referent) (cf. Levin & Rappaport Hovav, 1995). These are phenomena where EP and English diverge and which L1-EP L2-English learners struggle to master. Typically, they only eliminate free inversion from their grammars at a near-native level and are never able to perform monolingual-like regarding the syntax-discourse properties of locative inversion (Teixeira, 2017, to appear).

The participants in this study were 20 English native speakers and 20 Portuguese learners of English who were attending a B2.2 English course. A proficiency test determined that 8 of these learners were at the C1 level and 12 at the B2 level. They were evenly divided into two groups: the experimental group, which was instructed on the target properties (90 min per property), and the control group, which did not receive this instruction. Both groups were pre-tested and post-tested immediately and five weeks after the treatment. Learning was measured by means of speeded acceptability judgement tasks.

On pre-testing, the experimental and control groups accepted free inversion and locative inversion with change-of-state unaccusatives and non-redundant unergatives. Post-tests revealed that the control group did not improve over time and that the impact of instruction on the experimental group's behaviour varied according to the type of target property and the level of proficiency. When the focus was on the syntax-discourse interface, instruction produced no long-term effects at C1 and B2 levels. In contrast, when instruction targeted syntax, it resulted in durable gains for the C1s and in no gains for the B2s. Together, these results suggest the syntax-discourse interface is less permeable to instructional effects than "narrow" syntax. They further suggest that the effectiveness of instruction depends on the stage of development at which learners are.

## The role of sleep in learning second language grammar: An exploratory study

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The ability to generalize linguistic rules to novel instances lies at the core of language acquisition. Pattern generalization certainly occurs while awake through training, but also during sleep (Rasch & Born, 2013). The facilitative role of sleep is tightly linked to memory consolidation—sleep strengthens memories encoded during while awake, and enhances performance during retrieval. This study explores a hypothesis that memory consolidation during sleep contributes to second language (L2) phrase-level grammar generalization—a linguistic domain less investigated in sleep literature.

One hundred English native speakers were trained, incidentally, with German grammar (Rebuschat, 2008) in the morning (n = 53) or the evening (n = 47) and tested on the hidden linguistic patterns. A new set of test was given after a 12-14hour retention interval filled with wakefulness or sleep. A retrospective verbal report prompting learners to state noticed patterns followed. The untimed grammaticality judgment test (GJT) measured learning and source attribution and retrospective verbal report measured explicit status of syntactic knowledge. We found sleep effects only with learners who can verbalize syntactic rules after training and before sleep. This effect was shown in increase of GJT scores after sleep intervals. Performance based on explicit judgment knowledge, however, did not increase over sleep. These findings suggest that awareness plus the articulatory knowledge may be the main determinant for whether or not sleep consolidates L2 grammar learning.

## Perceptions of interactional L2 fluency: temporal fluency and strategic competence

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L2 (second language) speech fluency studies have shown that objective, measurable aspects of temporal fluency, including speech rate and aspects of pausing, and raters' assessments of L2 fluency are connected (recently e.g., Bosker *et al.*, 2013). However, the majority of studies examining the links between utterance fluency and perceived fluency (Segalowitz, 2010) are based on L2 monologue speech samples, while studies examining interactional data are rare (but see e.g., Sato, 2014). Furthermore, L2 speech fluency has mainly been studied from the perspective of temporal aspects of speech, while different resources for maintaining fluency, e.g., stalling mechanisms (such as repetitions and filler words) and communication strategies (such as paraphrases), have received less attention (but see Peltonen, 2017).

In the presentation, the results of a study examining raters' (university students of English at a Finnish university, N=22) perceptions of L2 speech fluency and the use of strategies during an interactive problem-solving task are reported. The raters evaluated six L2 English dialogue samples from Finnish learners of English representing two school levels (15–18-year-olds) on a 9-point scale for general oral proficiency, (individual) fluency, interactional fluency, and strategic competence. The raters were also asked to comment on their numeric ratings. The research questions addressed the links between the ratings of different aspects of fluency and the connections between the ratings and selected objective fluency measures. In addition, a qualitative analysis of raters' comments was conducted to examine which features are most salient in the assessments of different aspects of L2 fluency and strategic competence.

The results demonstrate connections between different aspects of fluency and between utterance and perceived fluency. Overall, the results highlight the importance of extending L2 fluency research to dialogue data, which enables the study of both individual and interactional fluency (cf. McCarthy's 2010 concept of *confluence*). L2 speech fluency also appears to be linked to strategic competence (see also Peltonen, 2017), which should be taken into account in L2 fluency assessment and research.

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## Cognitive Aging Effects in the Adult Additional Language Acquisition of Dutch

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Cognitive aging is a phenomenon that typically emerges in situations when completely new information has to be stored and applied, meaning that it particularly applies to adult second language (L2) learning (Van der Slik et al. 2017). One of the general challenges involved is to understand cognitive decline in the context of the cognitive requirements of the learning task, which may differ between adult learners of an additional language because of their background in L1 and other languages earlier acquired (L2s). In our study we use linguistic distances between previously acquired languages (L1 and L2s) and the additional languages as factors defining differences in the cognitive requirements of additional language learning (in our case Dutch) (Schepens et al. 2016). We succeeded in computing three linguistic distance measures: morphological, lexical, and phonological. Our hypothesis is that a larger linguistic distance increases the overall detrimental effects of cognitive decline on additional language learnability, but that morphological distance is distinctive in aging because of its special status in adult language acquisition.

Both receptive (listening and reading) and productive (speaking and writing) skills in Dutch of 50.000+ adult language learners from 75+ countries, speaking 40+ L1s, were studied by using their scores on the state exam L2 Dutch (STEX, level B1). The three distance measures show to cover separate components of the linguistic distance concept in general. We investigated two age-related effects, Age of Arrival (AoA) and Length of Residence (LoR), controlling for a large set of variables, e.g., gender, education and country of origin.

Adult language learners' skills in Dutch turn out to improve with LoR, but this conclusion is only warranted for morphology when their L1 morphological complexity is comparable to Dutch. We found evidence that the effect of LoR may even reverse, having a negative impact when L1 morphological complexity is lower than Dutch. The effect of cognitive aging is more directly apparent in AoA. The effects of the three distance measures vary, but all three are relevant. The effect of AoA is moderated by morphological complexity in particular however. Our overall conclusion is that cognitive aging brings about a gradual declining process in L2 learning, but that its effect depends on the structural differences between the language background of the learner and the target language.

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## Exploring the development of aspect in advanced English learners of French during ‘the Year Abroad’

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Learning how to express viewpoint (imperfective/perfective) aspect in a second language is known to be problematic for English speakers who do not fully grammaticalise this distinction (Howard 2005; Labeau 2005; McManus 2015). In this study, we investigate the development of viewpoint aspect in the oral production of a group of 20 advanced L1 English university-level learners of L2 French. The analysis focusses specifically on students’ development over the course of the “year abroad (YA)” - in this case, an extended period (approximately nine months) of residence in France - a defining component of the majority of undergraduate modern languages courses. Although much research has shown that the YA has a positive effect on global measures of language proficiency (e.g. Lapkin et al 1995; Segalowitz et al 2004), only a small body of research has endeavoured to investigate developments in a specific area of grammatical proficiency during the year abroad (Llanes 2011), with even fewer studies having done so in a longitudinal manner. We use data from the freely-available LANGSNAP corpus ([www.langsnap.soton.ac.uk](http://www.langsnap.soton.ac.uk)) in order to analyse production both before and towards the end of the period of residence abroad. We compare learners’ accurate production of the perfect and imperfect forms (respectively, the *passé composé* and the *imparfait*) in L2 French in an impersonal narrative task, and consequently assess and categorise the degree of improvement in this area during the YA across four grammatical contexts: the three interpretations of the *imparfait* (Imperfect-Habitual, Imperfect-Continuous, Imperfect-Progressive), and the *passé composé*. Crucially, we also include information on the type of year abroad placement (teaching assistant, workplace intern, or exchange student) undertaken by each student in our analysis, with a view to assessing whether there is a relationship between placement type and degree of improvement.

Our findings attest to the positive impact of the year abroad on grammatical development (as specifically shown through the accurate production of the *imparfait* and *passé composé* forms), thus supporting previous findings advocating for the benefit of residence abroad for oral proficiency, particularly for learners who were weaker to begin with (Lennon 1990; Llanes 2010; Llanes & Muñoz 2009; Segalowitz & Freed 2004). An equal degree of improvement is not seen across all learners, and we provide a brief case study-style analysis of the performance of three “star improvers” in order to discuss possible reasons for exceptional improvement in grammatical development in this learning context.

# Index of Authors

- Abashidze, Dato, 150  
Ackerman, Lauren, 51  
Adler, Marie, 94  
Agache, Alexandru, 75  
Ahmadian, Mohammad Javad, 135  
Al Ghamdi, Amani, 36  
Al-Hawi, Asma, 17  
Alexopoulou, Theodora, 25, 154  
Altinkamis, Feyza, 114  
Ammar, Ahlem, 159  
Amprosi, Matthias, 106  
An, Youngjae, 37  
Anastasio, Simona, 112  
Andreou, Maria, 184  
Andringa, Sible, 102  
Arnaus, Laia, 78  
Arndt-Lappe, Sabine, 188  
Arntzen, Ragnar, 143  
  
Bagarić Medve, Vesna, 95  
Baills, Florence, 22, 57  
Baldus, Lina, 188  
Barón, Júlia, 84  
Bayram, Fatih, 90  
Bell, Victoria, 52  
Benazzo, Sandra, 42  
Berger, Thomas, 106  
Bernolet, Sarah, 46  
Berthele, Raphael, 2  
Bihler, Lilly, 75  
Billières, Michel, 23  
Blom, Elma, 162  
Boggs, Jill, 115  
Boila, Chiara, 19  
Boll-Avetisyan, Natalie, 171  
Bongartz, Christiane, 184  
Bordag, Denisa, 71, 140  
Borges, Lais, 165  
Borowski, Damaris, 38  
Bouhlal, Fatma, 159  
Bovolenta, Giulia, 60  
Branigan, Holly, 125  
Brenneis, Christian, 106  
Briggs, Jess, 115  
Broersma, Mirjam, 127  
  
Bruhn, Ann-Christin, 180  
Brunfaut, Tineke, 130  
Bsteh, Gabriel, 106  
Busby, Nicole, 33  
  
Cabrelli, Jennifer, 123  
Cameron, Alexander, 61  
Cantone, Katja Francesca, 77, 80  
Carlsen, Cecilie Hamnes, 96  
Carroll, Susanne, 104  
Castellví, Joan, 40  
Castelo, Adelina, 76  
Cebrian Puyuelo, Juli, 121  
Chaouch Orozco, Adel, 174  
Chen, Xiaobin, 155  
Chevalking, Jan Willem, 28  
Chondrogianni, Vicky, 125, 162  
Christensen, Peer, 178  
Clahsen, Harald, 189  
Clenton, Jon, 62  
Clingwall, Dion, 62  
Cobner, Amelia, 59  
Colonna, Saveria, 39  
Conklin, Kathy, 145  
Contro Casaldo, Isabel, 181  
Cots, Josep M., 160  
  
Daller, Michael, 87, 88  
Daskalaki, Evangelia, 162  
de Bree, Elise, 179  
De Cat, Cecile, 168  
De Cock, Barbara, 63  
De Vogelaer, Gunther, 163  
De Vos, Johanna, 141  
Delais-Roussaire, Elisabeth, 64  
Dewaele, Jean-Marc, 128  
Dey, Elena, 34  
Deygers, Bart, 96  
Diaubalick, Tim, 146  
  
Domene Moreno, Christina, 147  
Domínguez, Laura, 200  
Dunlea, Jamie, 106  
Duran Karaoz, Zeynep, 173  
Durand, Marie, 136  
Durvasula, Karthik, 158  
  
Eberharter, Kathrin, 106  
Edmonds, Amanda, 157  
Eguchi, Akiko, 65  
Ehling, Rainer, 106  
Eibensteiner, Lukas, 146  
Einfeldt, Marieke, 129  
Elin, Kirill, 189  
Eva, Jakupčević, 55  
  
Faitaki, Faidra, 31  
Fanta, Johanna, 163  
Feijoo, Sara, 40  
Feijóo, Sara, 84  
Felser, Claudia, 1  
Fenn, Kimberly, 197  
Fraser, Simon, 62  
Freitas, Maria João, 76  
Fritzsche, Tom, 19  
  
Galvin, Tesni, 59  
Gao, Yang, 150  
Gardner, Qingyuan, 125  
Gargiulo, Chiara, 21  
Geiss, Miriam, 151  
Gerritsen, Marinel, 70  
Gesá, Ferran, 82  
Gilabert, Roger, 40, 84  
Gill, Christian, 133  
Giunchi, Paola, 69  
Godfroid, Aline, 141, 190  
Gorba Masip, Celia, 121  
Goriot, Claire, 127  
Graham, Suzanne, 138  
Gudmestad, Aarnes, 157  
Gullberg, Marianne, 178

- Guo, Yanyu, 139  
Gut, Ulrike, 132
- Haberzettl, Stefanie, 105  
Hanzawa, Keiko, 175  
Harada, Yasunari, 47  
Hartsuiker, Robert, 46  
Head, Philip, 66  
Heilmann, Arndt, 118  
Hendriks, Henriette, 117  
Hendriks, Henriëtte, 154  
Herschensohn, Julia, 48  
Hervé, Coralie, 103  
Heyer, Vera, 131  
Hintzen, Sven, 108  
Hirakawa, Makiko, 72  
Hirano, Ayako, 67  
Hoetjes, Marieke, 107  
Holger, Hopp, 113  
Hopp, Holger, 79, 97, 149, 167  
Horgues, Céline, 185  
Horvatic, Jelena, 144  
Housen, Alex, 141  
Hracs, Lindsay, 104  
Huang, Ting, 32  
Hui, Bronson, 190  
Hui, Bronson, 35  
Håkansson, Gisela, 143  
Höhle, Barbara, 19, 171
- Inada, Takako, 128  
Isbell, Daniel, 190  
Ivanova-Slavianskaia, Natalia, 115
- Jackson, Carrie N., 113  
Jaekel, Nils, 187  
Jessen, Moiken, 105  
Jones, Kirsty, 52  
Jonkers, Sara, 63
- Kabak, Baris, 147  
Kapica, Natalia, 29, 105  
Karpava, Sviatlana, 17  
Kersten, Kristin, 94, 177, 180  
Kerz, Elma, 108, 118, 153  
Kieseier, Teresa, 68, 167  
Kim, Kathy, 197  
Kim, Kathy MinHye, 190  
Kim, Su Kyung, 186  
King, Mia, 52  
Klassen, Rachel, 119, 181  
Klein, Stephanie, 41  
Koch, Eva, 141  
Kogan, Vita, 13  
Kohl, Katharina, 75  
Kopeckova, Romana, 132
- Kormos, Judit, 130  
Kourtali, Nektaria, 165  
Krahmer, Emiel, 74  
Kras, Tihana, 58  
Kremmel, Benjamin, 106  
Kuiken, Folkert, 148  
Kupisch, Tanja, 90  
Kupisch, Tanja, 64, 129, 151
- Lahtinen, Sinikka, 194  
Laufer, Batia, 186  
Lecouvet, Mathieu, 120  
Lemhöfer, Kristin, 45, 141  
Lengeris, Angelos, 152  
Lenzing, Anke, 91, 99  
Leroux, Agnès, 192  
Lesonen, Sirkkku, 93  
Levkina, Mayya, 84  
Leyendecker, Birgit, 75  
Li, Peng, 22  
Listanti, Andrea, 69  
Liu, Tongkun, 12  
Llanes, Àngels, 160  
Lloyd-Smith, Anika, 90  
Lloyd-Smith, Anika, 129  
Loe, Johanna, 52  
Lopez, Elaine, 51  
Lorette, Pernelle, 27  
Lozano, Cristóbal, 161  
Lu, Xiaojun, 165  
Luijckx, Antoinette, 70
- M. Licerias, Juana, 181  
Madlener, Karin, 43  
Magliacane, Annarita, 122  
Mairano, Paolo, 64  
Mano, Miho, 44  
Marijanović, Vanda, 23  
Marinis, Theo, 137  
Marsden, Heather, 37, 174  
Marx, Nicole, 133  
Matsumoto, Yo, 44  
McCabe, Sarah, 158  
McDonough, Kim, 150  
McQueen, James, 127  
McQueen, James M., 45  
Melnik, Gerda Ana, 142  
Meng, Michael, 140  
Meurers, Detmar, 155  
Meyer, Christian, 105  
Michel, Marije, 130, 165  
Mickan, Anne, 45  
Milicevic Petrovic, Maja, 58  
Miralpeix, Imma, 82  
Mitrofanova, Natalia, 151  
Montero Perez, Maribel, 85
- Mora, Joan C., 13, 86, 164  
Mora-Plaza, Ingrid, 164  
Morishita, Miwa, 47  
Moskvina, Natalia, 84  
Murphy, Victoria, 31  
Muylle, Merel, 46  
Muñoz, Carmen, 81, 82  
Mylläri, Taina, 16  
Mäkilä, Mari, 20, 194  
Mäntylä, Katja, 194
- Nabei, Lisa, 47  
Nation, Kate, 31  
Nazzi, Thierry, 171  
Neumann, Stella, 108, 118  
Nicolás Conesa, Florentina, 172  
Nimz, Katharina, 191  
Nordanger, Marte, 176  
Ntalli, Athina, 154
- Oganyan, Marina, 48  
Ogawa, Mutsumi, 49  
Opitz, Andreas, 71, 140
- Pagonis, Giulio, 105  
Pallotti, Gabriele, 110  
Papastefanou, Theodora, 137  
Paradis, Johanne, 3, 162  
Paspali, Anastasia, 50  
Pavičić Takač, Višnja, 95  
Pellicer-Sánchez, Ana, 145  
Peltonen, Pauliina, 198  
Peperkamp, Sharon, 142  
Peters, Elke, 81, 83, 92  
Pfenninger, Simone, 182  
Pichan, Carrie, 123  
Pili-Moss, Diana, 193  
Piske, Thorsten, 149  
Poarch, Greg, 100, 163  
Polter, Max, 140  
Pon, Leonard, 95  
Porter, Alison, 138  
Prieto, Pilar, 22, 57  
Proietti Ergün, Anna Lia, 69, 126  
Puig-Mayenco, Eloi, 156  
Puimège, Eva, 92  
Pujadas, Geòrgia, 82  
Pylypenko, Kateryna, 25
- Quesada, Teresa, 161
- Ramis, Antonio, 40  
Rankin, Tom, 51  
Rast, Rebekah, 136  
Rebuschat, Patrick, 155

- Reifegerste, Jana, 189  
 Revesz, Andrea, 165  
 Ritter, Markus, 187  
 Rizzo, Claudia, 184  
 Roche, Jörg, 105  
 Rogers, Vivienne, 52, 59, 119  
 Romano, Francesco, 111  
 Roos, Jana, 99  
 Roquet Pugès, Helena, 172  
 Rose, Heath, 115  
 Rothman, Jason, 90, 123, 156  
 Rubin, Rachel, 30  
 Ruigendijk, Esther, 124  
 Ruiz, Simon, 155
- Saito, Kazuya, 73  
 Salaberry, Rafael, 146  
 Sanders, Rachel, 52  
 Santiago, Fabian, 42, 64  
 Saturno, Jacopo, 109  
 Savory, Clare, 138  
 Schelletter, Christina, 149  
 Schepens, Job, 199  
 Scherfler, Christoph, 106  
 Scherger, Anna-Lena, 116  
 Schetters, Patrick, 24  
 Scheuer, Sylwia, 185  
 Schimke, Sarah, 39, 163  
 Schroeder, Christoph, 89  
 Schug, Maike, 105  
 Schurig, Michael, 187  
 Schüle, Christoph, 177  
 Scott, Aimee, 52  
 Sergio, Lia, 115  
 Serratrice, Ludovica, 123  
 Sigmeth, Kristy, 15  
 Simon, Ellen, 114  
 Slabakova, Roumyana, 195  
 Sokolova, Marina, 195  
 Spiby, Richard, 106  
 Splendido, Frida, 64  
 Spöttl, Carol, 106  
 Starosciak, Katarzyna, 136  
 Steiger, Ruth, 106
- Steinkrauss, Rasmus, 93  
 Steinkrauss, Rasmus.G.A., 32  
 Steinlen, Anja, 149, 177  
 Stephens, Alice, 52  
 Ströbel, Marcus, 153  
 Suhonen, Lari-Valtteri, 26  
 Sun, Hui, 53  
 Suner, Ferran, 120  
 Suni, Minna, 93  
 Suzuki, Kazunori, 72  
 Suzuki, Natsumi, 18  
 Suzukida, Yui, 73  
 Suárez, M. del Mar, 84  
 Swerts, Marc, 74
- Tanaka, Natsumi, 54  
 Tavakoli, Parvaneh, 173  
 Teixeira, Joana, 196  
 Thoma, Dieter, 166, 167  
 Tiulkova, Ekaterina, 23  
 Torregrossa, Jacopo, 184  
 Trebits, Anna, 94  
 Trenkic, Danijela, 144  
 Trofimovich, Pavel, 150  
 Tsimpli, Ianthi Maria, 154  
 Tusun, Alimujiang , 117
- Uchihara, Takumi, 98  
 Unsworth, Sharon, 127  
 Urbanek, Lukas, 163  
 Uth, Svenja, 105
- van Ackern, Isabelle, 187  
 Van Beuningen, Catherine, 102  
 van de Weijer, Joost, 21  
 van der Slik, Frans, 199  
 van Hout, Roeland, 199  
 van Hout, Roeland , 127  
 van Maastricht, Lieke, 74  
 van Mulken, Margot, 70  
 van Ommen, Sandrien, 171  
 Vanhove, Jan, 170  
 Vasylets, Lena, 84
- Vasylyeva, Tetyana, 101  
 Vedder, Ineke, 148  
 Verhagen, Josje, 179  
 Verspoor, Marjolijn, 93  
 Verspoor, Marjolijn.H., 32  
 Vickov, Gloria, 55  
 Vilkaite-Lozdiene, Laura , 145  
 Vogelbacher, Markus, 167  
 von Stutterheim, Christiane, 4  
 Voss, Kirsten, 100  
 Vraciu, Alexandra, 172, 192
- Wallington, Amy, 200  
 Watorek, Marzena, 136  
 Webb, Stuart, 98, 186  
 Weidinger, Nicole, 105  
 Westergaard, Marit, 134, 151  
 White, Lydia, 56  
 Wiechmann, Daniel, 108, 153  
 Wijers, Martje, 183  
 Willard, Jessica, 75  
 Williams, John N., 60  
 Williams, Kate, 52  
 Wisniewska, Natalia, 86  
 Woore, Robert, 138  
 Wrembel, Magdalena, 132  
 Wright, Richard, 48
- Xia, Yunxiao (Vera), 56
- Yanagisawa, Akifumi, 98  
 Yohanan, Beverley, 186  
 Yokokawa, Hirokazu, 67  
 Yoshinari, Yuko, 44  
 Yuan, Boping, 139
- Zehentner, Matthias, 106  
 Zeller, Patrick, 124  
 Zhou, Chao, 76
- Åberg, Anne-Maj, 194  
 Şafak, Duygu Fatma, 97



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