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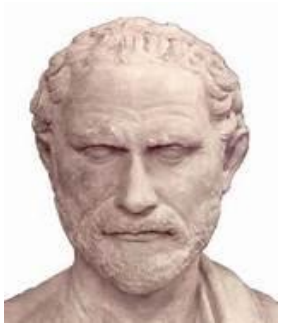

ISMBS 2019

BOOK OF ABSTRACTS

27-30 AUGUST 2019
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ABSTRACTS

PLENARY TALKS

Cross-linguistic influence and task-effects in the acquisition of L2 intonation

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The goal of this talk is to discuss how task effects modulate cross-linguistic influence in second language (L2) intonation, by analyzing evidence from a series of studies looking at both production and perception. The first experimental study focuses on English sentence types (statements, absolute and declarative questions) by speakers of three typologically different first languages (Spanish, Mandarin and Inuktitut). The second study involves the same first and second languages but a different structure: corrective focus. In both sets of studies, the task-type was systematically manipulated (structured vs semi-spontaneous tasks). The third and final study looks at the production of Spanish broad focus declaratives by early and late Spanish-English bilinguals. Results obtained from the first and second study showed that the extent of cross-linguistic influence varied both on a structure-by-structure basis and as a function of the type of task. Indeed, larger group differences were found in the perception and production of corrective focus when compared to sentence types, and this was particularly the case in semi-spontaneous tasks. Results obtained from the third study added an interesting piece of evidence: early bilinguals approached monolinguals more closely in a semi-spontaneous than in a reading task. I will address this apparent paradox by analyzing differences related to the specific structure under analysis and the type of input to which each group was exposed.

Acquiring two languages in early childhood: The role of the input

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Many input factors are potentially relevant to explaining the course of early bilingual development. Some major ones include the relative timing of input in two languages, the cumulative, absolute and relative frequency of the overall language input, the input frequency of specific linguisitc categories, whos speaks what language to children and how, parental discourse strategies, communicative settings and media use, and caregivers' interactional style. The challenge is to connect the ever changing features of input in each language with bilingual children's maturing development, and mapping children's language intake and developing proficiency along the way. One fundamental issue here is how input should be measured. Starting from this methodological question, the talk presents some findings from the speaker's research program that can elucidate the relation between input and early bilingual acquisition.

Acquisition outcomes in the sound systems of heritage speakers

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The weaker or "heritage" language (HL) of bilingual speakers has received a lot of attention recently. However, their sound systems have been studied less than morphological, syntactic and semantic aspects of language. It is generally assumed in research on adult bilinguals that phonetic and phonological competences, being early-acquired, are relatively robust in heritage languages (e.g. Benmamoun et al. 2013; Montrul 2008), although this contradicts, at least partially, research on developing bilingual children, which has shown that the two languages of bilingual children are vulnerable to cross-linguistic influence (e.g. Kehoe, 2018; Lleó, 2018). It is true that the accents of (most) heritage speakers (HSs) sound more authentic (or "monolingual-like") than those of (most) late second language learners. At the same time, monolingual judges take most HSs to be foreign speakers of their native languages. Polinsky (2018b) mentions a "heritage accent"; other studies have shown that HSs are identified as speakers of their dominant language on a par with L2ers, albeit with more moderate accents on a group level (e.g., Kupisch et al. 2014; Lloyd-Smith, Einfeldt & Kupisch, forthcoming). In this talk, I will first summarize recent studies on global accentedness in HSs. I will then look at particular features of HL sound systems, pointing out that only a subset of properties differ from those of monolinguals. I will point to parallel mechanisms in HL sound systems and other linguistic subsystems, arguing that HL sound systems are more than simply a merger of the heritage language and the dominant language.

Dysarthria across languages: Contrastivity and the vocal tract

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This presentation is a mapping exercise in more than one sense: We take as our point of departure an articulatory approach to phonology, and consider the notion of contrastivity as a mapping of different vocal tract configurations (and the perception of the speech signals that result from them) onto contrasting word meanings. Different languages and language groups exemplify different patterns in how the affordances of the vocal tract are used to embody contrastivity: For example, in some languages, pitch is lexically contrastive (tone languages), while in others, pitch is used to express affective or informational contrasts. Some languages use differences between nasal and non-nasal resonance contrastively, while others (a minority of the world's languages) don't. Some languages employ the difference between complete occlusion of airflow versus narrow versus wider air channels, at the same place of articulation (plosives versus fricatives versus approximants) contrastively. The subtypes of dysarthria are typically considered, in clinical terms, from the perspective of motor speech execution, that is, an individual's ability or inability to produce a clearly identifiable speech signal. Research in dysarthria is dominated by work in a handful of mainly Indo-European languages, among which English is, in turn, the best represented. However, as clinical phonetics (as a basis of speech-language therapy assessment and intervention) spreads to more countries and languages, and as populations in many countries are becoming increasingly diverse and multilingual, it is necessary to consider the potential effects of dysarthria on the contrastive systems of more and different languages, in order to develop clinical guidelines for intervention. Our final mapping exercise therefore is a consideration of the speech difficulties typically associated with dysarthria on the articulatory-contrastive demands of a variety of languages.
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The acquisition of Chinese in bilingual and multilingual contexts

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Increasingly, many children acquiring a Chinese language such as Cantonese or Mandarin are also exposed to another language from early on. In a community like Hong Kong, the majority of children grow up with exposure to Cantonese and English, two typologically divergent languages with striking contrasts in many aspects of grammar. The development of Cantonese-English bilingualism offers a unique window that allows us to see how the two target languages interact in systematic ways. In a number of grammatical domains including right dislocation and null objects, bilingual children's Cantonese shows bidirectional cross-linguistic influence to and from English. Structural overlap between the target grammars is hypothesized to be a condition for cross-linguistic influence (Hulk & Müller, 2000). These points will be illustrated by examples from 9 children aged from 1;3 to 4;6 based on longitudinal speech data from the Hong Kong Bilingual Child Language Corpus (Ge, Matthews, Cheung, & Yip, 2017; Yip 2013; Yip & Matthews, 2007; Yip, 2016). An experimental study by Chan, Chen, Matthews and Yip (2017) on relative clauses in trilingual Cantonese (L1)-English (L2)-Mandarin (L3) children shows that they find it harder to process object relative clauses in Cantonese compared to the monolinguals, whereas their Cantonese performance uniquely predicts their Mandarin performance. We suggest that the structural overlap between Cantonese and Mandarin facilitates positive transfer, whereas the processing of Cantonese object relatives is influenced by surface overlap with English reduced relative clauses. The complex interaction of the target languages can thus be viewed systematically through the Chinese looking glass.

CONTRIBUTED PAPERS

Quantity distinctions in L2 speech and L1 listeners' perception process

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The purpose of this study is to relate auditory and acoustic measures of quantity in L2 Swedish speech with listeners' transcriptions in ScriptLog (Strömqvist et al, 2016). Swedish has nine basic long vowel phonemes with a short variant as an allophone in all 18 vowels (Bruce, 2010; Riad, 2014). A stressed syllable has a longer duration compared to an unstressed syllable with a complementary relationship, a long vowel is followed by a short consonant, V:C, and a short vowel is followed by a long consonant, VC:. The quantity is distinctive with many minimal pairs, e.g. *tal* [tɑːl] 'speech' – *tall* [talː] 'pine tree', *lös* [løːs] 'loose' – *löss* [løsː] 'lice'. There are also prosodic phonological distinctions of stress placement and of tonal word accent. The speaker material consists of L2 Swedish speech from one L1 Spanish speaker uttering 10 sentences in Swedish. Auditory analyses of the quantity distinction and acoustic analyses of durations of vowels and consonants in the stressed syllable were made from the word pairs *vägen* [vɛːgən] 'the road' – *väggen* [vɛgːən] 'the wall', *kallas* [kalːas] 'is called' – *kalas* [kalɒːs] 'party', and *granen* [gɾɒːnən] 'the fir-tree' – *grannen* [gɾanːən] 'the neighbour'. These analyses were compared with ScriptLog transcriptions from 7 listeners. Apart from the final transcription, data for transcribers' changes and durations, numbers and placement of pauses is shown in a log file. We are especially interested in what happens before the words in focus for this study. Results from the ScriptLog transcriptions (Abelin & Zetterholm, 2019) can be correlated with pronunciation errors for quantity. This is partly a methodological study where we are developing analyses of L2 speech as a complement to final transcriptions, evaluations of degree of foreign accent and of intelligibility, etc. The method can also give insights into listeners' processes when listening to different types of L2 speech.

Keywords: quantity, L2 speech, L1 listener, ScriptLog

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Japanese learners' interactional deployment of English *I don't know* and Japanese *wakannai* in classroom discussions for language learning

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What is examined in this study are the differential actions achieved by Japanese learners of English in claiming lack of epistemic knowledge through deployment of English *I don't know* and Japanese *wakannai*. Studies of *I don't know* in both first and second languages found that in semi-experimental settings first language (L1) speakers use *I don't know* for epistemic stance management, whereas second language (L2) speakers mainly employ it for online speech processing (Aijmer, 2009; Baumgarten & House, 2010). However, little scrutiny has been applied to its equivalent in Japanese, *wakannai*. We explicate, through conversation analysis, L2 speakers' use of *I don't know* and *wakannai* in naturally occurring classroom interaction. Over 210 hours of L2 interaction were video-recorded during small-group discussions in English language classes at a Japanese university. The groups discussed various topics, for the most part in English but contingently moved into Japanese, their common L1. It was found that participants use *I don't know* and *wakannai* to achieve differential actions. In contrast to previous research, *I don't know* is deployed by these learners for epistemic stance management: especially for downgrading epistemic stance following peer displays of disaffiliation that are revealed through silences and minimal responses. The alternative, *wakannai*, is regularly employed in this dataset to signify insufficient knowledge regarding linguistic or content matter, while in mundane conversation in Japanese it can, similar to *I don't know* in English, perform a wider range of actions. The findings show how interactants with multiple languages at hand may enact some actions concerning epistemic stance through a certain language while employing another language for accomplishing alternate actions.

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Disjunction in L1 Japanese imperatives

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It has been argued that exclusive reading of disjunctive phrases is unavailable in the early stage of first language acquisition (FLA) across languages (Sigh et al., 2015; Tieu et al., 2017). For example, unlike their adult counterparts, L1 Japanese children tend to reject (1) if only the car is pushed down the hill.

(1) kuma-san-ga kuruma-ka-fune-o oshimashita.
Bear-Mr.-Nom car -or-boat-Acc pushed
'The bear pushed a car or a boat.'

Sigh et al. claim that in implicature computation, children have only two alternatives: (A) the bear only pushed the car and (B) the bear only pushed the boat, whereas adults have one more alternative: the bear pushed the car and the boat (A∧B), which leads children to interpret sentences of the type in (1) conjunctively. We report experimental results showing that unlike (1), the participants (#29; Mean Age 5:13) accepted sentences like (2) in three different conditions at the acceptance rate of over 95%: (Monkey) putting (A) only a red ball, (B) only a blue ball, and (C) both red and blue balls.

(2) Aka-ka-ao-o ireru.
red-or-blue-Acc put in
'Put a red or blue (ball) there.'

This result appears to show that inclusive reading is available in imperatives at the age of 5. Given Sigh et al.'s finding, however, we argue that this inclusive-looking reading is a combination of conjunctive and exclusive readings. The conjunctive reading in question is already guaranteed under Sigh et al.'s hypothesis, whereas the exclusive reading follows from the property of imperatives that any alternatives can be accessed freely (Aloni, 2007). In (2), we have two alternatives: putting only a red ball and putting only a blue ball; therefore, we can access to either of the alternatives, which leads to the intended exclusive reading. We conclude that despite its appearance, the current finding supports Sigh et al.'s hypothesis.

Keywords: imperatives, exclusive reading, inclusive reading, conjunctive reading, Japanese

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Microstructure analysis in the analysis of personal narratives

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Several studies indicated that for typically developing toddlers (TD) personal narrative (PN) skills indicate the child's ability to express linguistic coherence, topic maintenance and communicative initiative according to macrostructure analysis parameters which can be employed cross-linguistically. Data on microstructure protocols in PE analysis remain sparse and variable due to the typological differences characterizing a given language. In the current study the authors discuss the implementation of microstructure regimes including class analyses (nouns, verbs, adjectives, prepositions, pronouns and clitics) according to C-units for sentences structure as well as other parameters including While Word Matches, MLU in words and semantic diversity. Such parameters provide valuable information regarding linguistic profiling of children along with suggestions regarding the implementation of such regimes in cross-language research.

Keywords: microstructure information analysis, cross-linguistically, intervention, phonological target analysis

Child speech errors in anticipation and perseveration

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Studying tongue slips is a means of understanding language representation and processing. It is known that anticipation accounts for such unintended errors in child speech though not as frequently as in adult speech (Jaeger, 2005; Stemberger, 1989). However, processing of children's slips has been examined only in monolinguals. How are tongue slips processed by bilingual children? Are there as many slips in both languages independently of their acquisition level? Does anticipation change with age and is it as frequent in both languages? The present study aims to contribute towards answering these questions by investigating a bilingual child's tongue slips in English and Greek for nine months, from age 2;7 to 3;3. The child's speech was digitally recorded during daily interactions with the author. Data comprised 59,000 word tokens in English and 51,000 in Greek, with the Mean Length of Utterance in words (MLUw) in English being 1.5 lower than in Greek. Focus is on processing consonant addition word initially, before a vowel or a consonant. There are twice as many additions in English: 4 per 1,000 words. In both languages, vowel-initial words are added to more often before age 2;11 and consonant-initial words afterwards, and anticipation becomes stronger with age. As compared to perseveration, anticipation in English occurs 30% before age 2;11 and 50% thereafter, with two thirds of anticipation within a word and one third between words before age 2;11, these proportions being reversed afterwards. Anticipation was stronger in Greek as compared both to perseveration and to within-a-word vs. between-words, by 15% and 20% respectively. The results show that the acquisition level of a language in child bilingualism is indicative of the frequency of tongue slips and the ability to process slips by anticipation, in line with the fact that anticipation in adults is stronger than in children.

The Part-of-Speech Profile as a mirror for the syntactic development: A comparative study of narratives in 4- and 6-year-old children

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Acquisition of different parts of speech (PoS) plays a unique functional role of building blocks interacted to each other in utterance, text, and discourse. The more speech development progresses, the more skillfully and flexibly children manipulate different PoSs to produce structurally well-organized and semantically transparent discourse. However, most studies in the PoSs analysis has dealt with content words only and have focused on early stages of language acquisition. Our study aims at analyzing developmental changes in the PoS Profile during later preschool age. The study was based on a corpus data of Russian monolingual typically-developing children: Subcorpus-1 included 38 narratives of 4-year-old children; Subcorpus-2 included 24 narratives of 6-year-old children. An incidence of each PoS (in word tokens) was estimated in each age group and the PoS Profiles were compared. The results evidenced a significant impact of age on a distribution of the PoSs. The percentage of only three PoSs (nouns, verbs, and adverbs) was similar between the groups, while the percentage of the remaining PoSs was significantly different. The 4-year-old children used more particles, interjections, and pronouns and less participles, numerals, adjectives, conjunctions, and prepositions when compared to the 6-year-old children. We presume that PoSs Profile of later stages of language acquisition might shed light not only on morphological but also on syntactic development. Specifically, a low percentage of conjunctions in the 4-year-old children implies that most of their sentences contain only one clause; a low percentage of prepositions signals that noun phrases mostly function as subjects and objects, while other arguments are rare. A huge number of particles (many of them function as discourse markers) demonstrates an attempt for story cohesion; but, on the other hand, a high percentage of pronouns implies flaws in reference structure.

Keywords: syntactic development; narrative; parts of speech, typical language development

Acknowlegment
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Phonology/morphology interaction: A general model of word-structure tested on Danish

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I shall discuss Basbøll's general model of integration of suffixes into word structure, emphasizing its phonological aspects. The primary criterion asks whether the suffix is added to new words, and it has three possible answers (as default; only sometimes; or not). Then two additional binary criteria are used: is the suffix added to a word (rather than to just an abstract stem)? and is the suffix signalled phonotactically as an ending? This gives, for the general model, five degrees of integration of suffixes. Different languages (with suffixes) can grammaticalize differently, just like, e.g., number can be grammaticalized differently (with or without duals, etc.), and the vowel space can be phonologized differently (with a different number of phonemes, different boundaries between them, etc.). Danish grammaticalizes so that the two extreme degrees in the general system are distinguished, but the three in the middle are not, amounting to the following three degrees of integration: *minimal integration*: suffixes that are both added as default, *and* added to a word, not just an abstract stem; *maximal integration*: suffixes that are *not* added to new words, *and not* signalled phonotactically as an ending. This leaves a category with *medium integration* that is heterogeneous morphologically but not with respect to phonology (including prosody). The focus of the talk is the consequences of the model for phonology: The three different degrees of integration of suffixes define three positions in word-structure: **P1, P2** and **P3** leading to three phonological domains (Figure 1) that are relevant for phonological rules, viz. vowel shortening before CC, approximant-drop and stød (a laryngeal syllable rhyme prosody, cf. Fischer-Jørgensen, 1989; Grønnum & Basbøll, 2007). Derivational and inflectional suffixes behave differently phonologically, even though they follow the same basic principles with respect to the model.

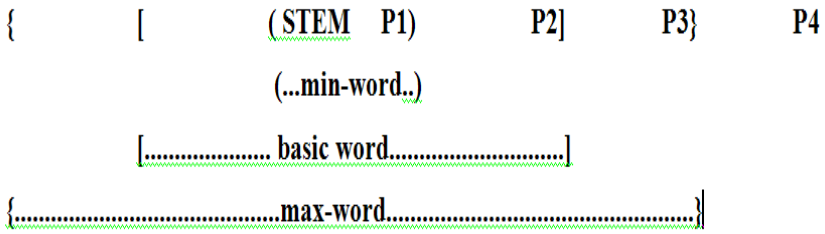

Figure 1. Word structure in Danish, based upon the four different positions derived from Basbøll's general model for integration of suffixes. P4 is the position for clitics, outside the max-word. Min-word, basic word and max-word are domains for different phonological (incl. prosodic) rules (from Basbøll 2009:20)

Keywords: phonology, morphology, prosody, word-structure, suffixes

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How children with SLI use co-speech gestures to communicate

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This study explores whether gesture-speech coordination in children with specific language impairment (SLI) enhances their communication. A Multimodal approach (Kendon, 1980, 2004; McNeill, 1992) was recently integrated to the field of language impairment. Several authors (Botting et al., 2010; Iverson & Braddock, 2011; Alibali et al., 2000) showed that children with SLI produce more gestures than typically developing children (TD) when struggling with conceptual expression or lexical access (Arnold et al., 2014). Can gestures aim to compensate for linguistic difficulties, thus making children with SLI produce more gesture than TD children? We video-recorded 30 French-speaking children (15 children with SLI and 15 typically-developing children) aged from 8 to 11. Children first played a guessing game with the examiner and then described their room. For each recording, we determined the quantity and type of hand gestures produced. We then examined whether gestures were strictly related to speech and how they were integrated in children's verbal productions in the two types of activities. Results showed significant qualitative and quantitative differences between TD children snd children with SLI. During the guessing game, children with SLI produced more gestures, which were mostly representational. TD children produced fewer gestures, which were mostly rhythmic and self-regulatory. However, during the description task, children with SLI used fewer gestures than TD children. Both groups produced deictic and representational gestures. Moreover, the gestures were strongly complementary to speech. The findings show the complexity of gesture-speech coordination in children with SLI. Speech elaboration is a multimodal process where gestures play an important role. However, according to the nature of the difficulties in communication, gestures can both be inhibited or strongly mobilized and facilitate expression. Gestures can therefore convey additional information to what is conveyed verbally in both types of population and are used differently according to the type of activity.

Keywords: specific language impairment, multimodality, gesture-speech

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OVS sentence processing in German L1 and German-Italian 2L1 pre-schoolers: Exploring bilingual effects

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Monolingual children display an early sensitivity for different cues to sentence structure (Franck et al., 2013). However, when interpreting non-canonical sentences they struggle to include case information until the age of six years (Dittmar et al, 2008; Schipke et al., 2012; Schulz & Grimm, 2019). This study investigates the processing of German object-verb-subject (OVS) sentences by monolingual (L1) and German-Italian simultaneous bilingual (2L1) children who were closely matched on linguistic and non-linguistic abilities and on age. We explore potential effects of bilingualism in offline and online measures and investigate links to cognitive control abilities (Bialystok, 2016) and to the quantity of input (Unsworth, 2016). We recruited five- to six-year-old (5;0-6;8) L1 (N=14) and 2L1 (N=14) children who were assessed with different standardised tests (PPVT, TROG-D, CPM, digit span) and participated in three tasks. Two assessed their cognitive control ability (flanker task, Rueda et al., 2004; task-switching paradigm, Wiseheart et al., 2016). In the main task children viewed two images and heard pre-recorded sentences on 32 test trials. The target image depicted the event of the sentence, the other showed the same action with roles reversed. Gaze positions were tracked by an eye tracker and the children's responses (identifying the target) were collected. Sentences varied within-subjects in three conditions: SVO (baseline), OVSearly where the case cue appears on the first noun phrase and OVSlate containing a temporal ambiguity. OVSlate sentences require a revision of an initial SVO parsing commitment and should be better understood with more mature cognitive control abilities (Huang et al., 2013; Trueswell et al., 1999). A first analysis of OVS accuracy data reveals better performance in monolingual compared to bilingual children with no relation to cognitive control abilities. Analyses of the eye-tracking data as well as input factors are ongoing and will be presented at the conference.

Keywords: German, OVS sentence processing, 2L1, L1, German-Italian, input, cognitive control abilities

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A usage-based perspective on the "tense-aspect hypothesis" in French-English bilingual children

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The influence of lexical aspect on tense-aspect morphology has been noted in studies on monolinguals in several languages (Li & Shirai, 2011). Both L1 and L2 learners of English restrict early uses of perfective past tense markers to a set of verbs highly compatible with perfectivity, e.g. telic, punctual verbs (Brown, 1976). Shirai and Andersen (1995) proposed that children construct a prototype of perfective past tense markers use by analyzing statistical regularities in the input. French monolingual children also follow that pattern (Parisse et al., 2019). Since bilingual children receive less input in each of their languages on average compared to their monolingual peers, do they develop tense-aspect morphology similarly to monolinguals? In order to assess their ability to extract regularities from their reduced input in each language, we analyzed French-English bilingual children's production of aspectual verbal forms in the *Hervé corpus*, a longitudinal corpus of two British children video-recorded once a month from 2;4 to 3;7. We coded all the verbs in the past tense used by the children and the adults. We found a clear association between lexical and grammatical aspect in both languages confirming the findings on monolingual children. However, the bilingual children we studied had a more restrictive use of verbal forms for several months longer than the monolingual children studied in the literature. We found a high rate of simple past (English) and *passé composé* (French) with a very fixed set of telic, punctual verbs, which were the most frequent in the input. The association between aspect and tense was stronger in the children's than in the adults' data. Those results indicate that the bilingual children in this study strongly relied on frequency to extract regularities and needed more time to receive enough input in each language to generalize their use to a greater variety of verbs.

Keywords: lexical aspect, tense-aspect morphology, bilingualism, first language acquisition, usage-based theory

A longitudinal study of the emergence of polysemous verbs in Mandarin child speech

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Lexical ambiguity abounds in languages and multiple one-to-many form-meaning mappings create challenges for language learners. Children prefer one-to-one form-meaning mappings at the beginning (Clark, 1993; Tomasello, 2005), but also use many highly frequent polysemous verbs freely from age two (e.g. Clark 1996). McKercher (2001) proposed the monosemy approach to the acquisition of the multiple senses of relational words such as *with*, whereas Kidd and Cameron-Faulkner (2008) argued that children initially extract a core feature of *with* but only use it in a restricted way. This study extended the theoretical debate to the acquisition of polysemous verbs in Mandarin child speech and focuses on the emergence of multiple senses of *dǎ*, a highly polysemous verb among the earliest verbs in child speech (Gao 2001, 2015). We analyzed longitudinal data of 9 children (age range 1;07–3;10) in two Mandarin child speech corpora: Tong (Deng & Yip, 2018; MacWhinney, 2000) and Taiwan Corpus of Mandarin Chinese (MacWhinney, 2000). The results show a total of 360 tokens of *dǎ* and 17 different senses in the chidren's speech. Two most frequent senses account for 72% of the production, i.e. *hit/beat* (38%) and *open* (34.4 %). The first frequent sense *hit/beat* indicates early acquisition of the prototypical meaning of *dǎ*, and the second frequent sense *open* reveals an early abstraction and extending of the prototypical meaning to a generic meaning of acting upon an object to make it accessible. The analysis of the first 10 tokens of *dǎ* further show that all the children started with multiple (2-5) senses (e.g. *hold*, *play*, etc.) from the beginning, but only the most frequently used sense *hit* was used with different arguments. These findings support a restricted monosemy approach (Cameron & Faulkner, 2008) and children's preference for initial unambiguous form-meaning mappings associated with verb arguments.

Keywords: child language acquistion, semantics, verb, Mandarin Chinese, longitudinal

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How do family language practices impact bilingual children's vocabulary development?

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Family language practices (FLP) are interlaced with families' language biographies. Consequently, children's exposure and language experience are prone to variation. A growing body of literature shows the impact of amount of language input on the development of bilingual children's receptive and expressive vocabularies (Cohen & Mazur-Palandre 2018; Hoff et al. 2014; Thordardottir 2011). This paper explores oral language in both languages of 21 typically developing bilingual French/English first grade children (mean age: 6;4) who attend a French/English dual language programme at a public school in France. The children, who differ in the amount of exposure they have had to each language, come from one of three home language backgrounds – English-dominant; French-dominant; or English and French. We explore the effects of language exposure on several measures of lexical richness. Parent questionnaires provide information on three independent variables related to FLP: current exposure, cumulative exposure from birth, and home literacy exposure (parent-child shared reading). Data in French and English are collected using standardised receptive vocabulary tests (EVIP, Dunn et al. 1993; BPVS, Dunn et al. 1987) and a story generation task to explore expressive vocabulary (*Frog, where are you?* Mayer 1969). The narratives are coded in the CHAT format of CHILDES to assess several measures of lexical richness: Malvern's D (Malvern et al. 2004); number of different verbs; number of different nouns; and number of different adjectives. Correlations are calculated between the language exposure measures and the lexical diversity scores. Initial results suggest that children's lexical richness strongly relates to cumulative exposure as well as home literacy exposure, independently from the family's home language background. Finally, through the presentation of three case studies, each representative of the different family backgrounds, we explore how FLPs may impact dual language maintenance in a monolingual society.

Keywords: bilingual development; receptive/expressive vocabulary; family language practices; language exposure; bilingual maintenance

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Investigating the production of Italian palatals by English-speaking learners: An acoustic study

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Although research on Italian as L2 is growing (Celata & Cancila, 2010; Sorianello, 2014) very little is known about the production of Italian palatal sounds by English-speakers. This study examines the production of /ʎ/ (*tova**gl**ia* [to.'va.ʎa] 'tablecloth') and /ɲ/ (***gn**omo* ['**ɲ**ɔ.mo] 'dwarf'). Flege's Speech Learning Model (Flege, 1995) predicts that these sounds are perceived as 'similar'. However, they are known to be difficult for English speakers because of their articulation [4] due to the complex conformation of the tongue. Based on (Berti, 2014; Tabain, 2011), it is predicted that L2 learners' /ʎ/ will exhibit higher F1, lower F2, F3 and F4 than the Italian controls. Based on Racasens et al. (1993) and Bongiovanni (2015), it is expected L2 learners' /ɲ/ will be shorter. Five English-native speaker and two Italian-native speakers completed a reading and a production task in Italian. 48 Italian target words were controlled for stress and syllables. An acoustic analysis was conducted to measure F1, F2, F3 and F4 for /ʎ/ and duration for /ɲ/. The hypothesis regarding /ʎ/ was partially confirmed. The mean formant values for the L2 productions were: F1=371.5Hz, F2=2064.5Hz, F3=2972Hz, F4=3781.5Hz. However, the mean formant values for the Italian were: F1=299Hz, F2=1803Hz, F3=2734Hz, F4=3858Hz. The hypothesis regarding /ɲ/ was confirmed. The mean duration value was 167ms for L2, and 181ms for Italian. L2 learners produced /ɲ/ as /n/ + /j/ at all times, exhibiting L1 transfer, reported previously by Stefanich & Cabrelli Amaro (2016), as the sequence /n/ + /j/ exists in English (*onion* ['ʌn.jən]). This study provides a fine-grained analysis of the L2 production of Italian palatal sounds and makes an empirical contribution to research on Italian as an L2.

Keywords: L2 acquisition, Italian sounds, palatal lateral approximant, palatal nasal, L1 transfer

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Double literacy effects on language and reading skills in Italian-English primary school children

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Major concerns still surround literacy education in a foreign language during primary school. In this study we aim to establish (1) whether bilinguals perform worse in Italian literacy tests than monolinguals; (2) whether literacy skills transfer from Italian to English. We tested 97 Italian-English bilingual first-, third- and fifth-graders (attending two bilingual primary schools in Italy, with a *simultaneous* 50:50 immersion program) and a control group of 40 monolingual Italian pupils in Grades 1 and 3. All participants were tested in Italian, measuring the following skills: vocabulary, phonological awareness, reading proficiency and verbal short-term memory. Bilingual participants – who had been exposed to Italian since birth and to English within the first three years of their lives – were also tested on the same measures in English. The results showed that bilingual first-graders outperformed their monolingual peers in verbal short-term memory, thus revealing a possible cognitive advantage in the early stage of literacy acquisition. Monolingual and bilingual first- and third-graders did not differ in reading speed. The two groups made an almost similar number of errors (monolingual and bilingual first-graders, respectively M=2.40 and M=5.32; monolingual and bilingual third graders, respectively M=1.75 and M=3.12), but the small difference turned out to be statistically significant. Bilingual subjects' reading attainment was found to be within monolingual normal limits in both languages and on all measures except for English reading comprehension, which, together with English vocabulary, was found to be below the English norm. Aside from reading comprehension, on all other measures bilingual children's performance in Italian correlated with their performance in English, suggesting the presence of cross-linguistic transfer of language and reading skills.

Keywords: bilingualism, literacy acquisition, double literacy, reading proficiency, language, primary school

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Acquisition of morphology of an English-Greek infant bilingual and early talker

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This case study discusses the acquisition of morphology of an infant bilingual acquiring English and Greek and may be of some special interest due to the fact that the young bilingual informant is an early talker and a balanced bilingual. It offers a glimpse into the linguistic processing of this young child, whose syntax emerged earlier than reported in the literature, as the two languages of English and Greek were differentiated before 1;10. The study is based on longitudinal data starting from a pre-morphological stage up until the age of just after four. It focuses on the acquisition of derivation, compounding and inflection in both languages. The young child shows remarkable creativity in both derivational and compounding processes of the two languages (with a preference for Greek), not only by extending morphological rules to novel nouns, verbs etc. but also by creating her own (often) polymorphemic words. Consistent with the *Separate Development Hypothesis* (De Houwer, 1990), the development of the grammars of English and Greek is separately controlled and influence of one on the other was found to be limited. The acquisition of morphology was not synchronised in the two morphologically different languages and, by the age of two, her morphology was more advanced in morphologically richer Greek than in English.

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MySpeechTrainer: Speech training system, data collection and innovative research

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Cross-fertilization between related, but distinct fields such as language learning, speech therapy and Human Language Technologies (HLT) has proven to be fruitful in many different ways. On the one hand because HLT are now increasingly used both in language learning and speech therapy, on the other because applications in these fields have spawned new lines of research in HLT. One field that has been able to profit from recent advances in HLT both for research and application development is Computer-Assisted Language Learning (CALL). While early systems addressed mainly written language, more recent applications also allow spoken interaction through the use of Automatic Speech Recognition. In general ASR-based CALL applications are conceived of and developed as systems for learning languages, and most commercial products are used only in this way. However, ASR-based systems that have been developed in a non-commercial environment, and that are freely available, can be also usefully employed as research and data-collecting instruments. In several places we have argued for such research-oriented use of ASR-based CALL systems, for instance in Second Language Acquisition (SLA) research on corrective feedback (Cucchiarini et al., 2014) or in L2 speaking research (Strik et al., 2012). Rarely do we see that CALL applications are used for speech therapy purposes or for research on disordered speech. In this paper we present the system MySpeechTrainer (MyST), which was initially developed for practice of and feedback on oral academic English skills, and we discuss how such a system can be adapted for therapy of and research on pathological speech. We discuss at least three important functions of MySpeechTrainer: as a training system for providing speech therapy, as a data collection and, to a certain extent, also data processing device, and as an instrument for conducting innovative research on pathological speech.

Keywords: automatic speech recognition (ASR), computer assisted pronunciation training (CAPT), pronunciation error detection, speech therapy, feedback

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Age of implantation and role of the hearing device in adult pathological speech

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This work analyzes the pathological speech of two male hearing-impaired speakers with different acoustic devices, investigating the role of auditory feedback by recording them with and without the acoustic devices. Many scholars have previously investigated vowel productions in children, by demonstrating the influence of age of implantation and prosthesis type (Garcia et al., 2010, ex multis), thus remarking the role of auditory feedback in improvement of their performance. In this paper, we wanted to test similar results on adult speakers. Both speakers are 20 years old: the first one has a BAHA 5SP on the left ear implanted 1 year before the recording, while the second one has digital devices on both ears starting from age 3. They read a word list with 34 Italian disyllabic words with the same phonological structure /'C1V1.C2V2/, with C2 being either singleton or geminate, by eliciting all the Italian vowels preceded by bilabial occlusives, voiceless and voiced. The 408 tokens were annotated in Praat and the values of formant frequencies of V1 were automatically extracted and analyzed on SPSS 20 with paired T-Tests or Wilcoxon-signed-rank tests to compare speakers' productions with and without the auditory feedback provided by the acoustic devices. The results show a difference between the two subjects: for the BAHA speaker, the V1 duration was significantly longer (13,17 msec.) with the hearing device off (Z=-2,908, p=0,004), while for the digital implanted speaker word duration was significantly different in the two recording conditions (Z=-2,949, p=0,003). The F0 value was also statistically different between the two speakers without the hearing device. Contrary to previous works, no clear difference has been found in the values of vowel formants in the two conditions while the age of implantation (or prosthesis) played a major role.

Keywords: pathological speech, auditory feedback, acoustic devices, vowels, age of implantation

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"The mesa": A phonetic analysis of English/Spanish code-switched determiner phrases

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In formal code-switching literature, there has been a debate as to whether mixed (D)eterminer (P)hrases such as in (1) are acceptable.

(1) The *mesa*
the.DET table
'the table'

Moro (2014) states that the switch in (1) is not permissible because the gender feature on the Spanish noun is not checked by the English determiner. However, this argument to account for this DPs ungrammaticality does not stand; López (2018) shows that Spanish nouns can be realized without a determiner. Furthermore, these DPs, though very infrequent, are verified to exist (Herring at al., 2010, from the Miami corpus, CSBTP, Bangor). In the present study, I explore the reasoning for the infrequency of constructions such as an English D + Spanish N DP. Specifically, I test the hypothesis that a phonological criterion is responsible, such that the entire DP must be pronounced with Spanish phonetics due to the noun's complex √root+*n*[±fem] morphosyntactic structure (López, 2018). To test the phonological criterion, I examined the phonetics of mixed DPs in two corpora: 26 15-minute interviews recorded in the Multilingual Phonology Lab at the University of Illinois at Chicago (Stefanich, in progress) and the Bangor Miami Corpus. Seventeen instances of these DPs were found. For each instance, we analyzed F1 and F2 of the vowel in 'the' in each of the mixed DPs and compared these formant measurements with the speaker's own /a/ in Spanish in other monosyllabic words. Preliminary analysis shows that the formants of the determiners in the mixed DPs and the Spanish /a/ pattern similarly. A full analysis of the data will verify whether these trends hold and will inform the question of whether these mixed DPs are infrequent due to a constraint on their phonological realization.

Keywords: code-switching, determiner phrase, Spanish, English, phonetics

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The role of language activities in the early acquisition of bilingual Frisian-Dutch vocabulary

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Activities such as book reading and oral story telling significantly influence bilingual language acquisition (Bosma & Blom, 2019; Patterson, 2002; Scheele et al., 2010). For Frisian, a minority language spoken in the north of the Netherlands, Bosma and Blom (2019) showed that shared book reading was especially important for the acquisition of Frisian vocubulary and morphology amongst children aged 5;0-6;0 years, while reading in Dutch only predicted Dutch vocabulary. The current study is comparable to the study of Bosma and Blom (2019) but targets younger children, aged between 2;5 and 4 years old. It examines the role of several language activities in the acquisition of receptive and productive vocabulary in Frisian and Dutch. Ninety one (91) participants were assessed in receptive and productive vocabulary in Frisian and Dutch every six months when aged between 2;6-4;0. Fifty eight (58) participants had parents who both spoke predominantly Frisian to them, whereas the parents of 33 participants used Dutch with them. Every six months parents were asked to fill in an extensive questionnaire on the type and frequency of language activities their child was engaged in, e.g. shared book reading, watching television, playing with peers, etc. Results showed that shared book reading significantly improved Dutch receptive and productive vocabulary. Interaction in Dutch also contributed to Dutch productive vocabulary. Other activities did not play an important role. None of the language activities significantly influenced the development of Frisian. This can be explained by the fact that children from Frisian-speaking parents were significantly more exposed to both languages during these activities compared to children from Dutch homes. In addition, there are many more Dutch books, television programs, etc. available compared to Frisian, since Dutch is the majority or national language in this region. These findings give implications for professionals working with preschoolers in a minority-majority language context.

Keywords: language activities, early bilingual vocabulary, minority language, Frisian, preschoolers

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Influence of reading acquisition on the choice of referring expressions in children's narratives

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We explore the impact of reading acquisition on children's use of referring expressions in narratives. Young children use deictic expressions in storytelling (Karmiloff-Smith, 1981, 1985), meaning they sometimes introduce a new character with a pronoun, whereas older children and adults often prefer a noun phrase (Jisa, 2000). At around 6-7 years old, they contrast more systematically the referring expressions used for newness or givenness (Bamberg, 1986; Hickmann, 2002). At this age, they also begin formal reading instruction. Written texts, which rely on a rigid respect of cohesion rules, offer children a new visual model of referential uses that could contribute to the development of referring abilities. This hypothesis is moreover suggested by the fact that children with dyslexia struggle to manage cohesion in narratives (Préneron et al. 1995). We video-recorded three groups of ten French-speaking children aged 4-4½, 5-5½, 6-6½ for two years and obtained six narrative sequences based on picture books. Children's reading level was assessed regularly. We analyzed the choice of referring expressions according to their position on the referential chain (first mention, maintaining or reactivation) and observed whether referential uses changed in connection with the evolution of the children's reading level. Results showed that, for the same position on the referential chain, the advanced readers gradually chose among a reduced variety of referring expression, while younger children tended to use a wider range of forms. Late readers struggled to integrate a systematic usage of referring expressions according to the position on the referential chain. Statistical analyses revealed that the ability to express reference was correlated to reading fluency, even for earlier readers. Discussion will focus on the possible concurrent factors, such as literacy and developing cognition, accounting for the evolution of pragmatic-discourse abilities.

Keywords: referring expressions, storytelling, reading acquisition

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Natural Growth Theory of Acquisition (NGTA): Evidence from (mor)phonotactics

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In this paper we propose a new explanatory framework for the acquisition of phonology and provide support for it with evidence from phonotactics and morphonotactics. Numerous models were proposed to account for bilingual acquisition. Recently, L3 acquisition has been in focus and the need arose for multilingual acquisition models. However, an optimal explanatory framework which would account for the complexity of the acquisition process in a multilingual mind is still lacking. In this paper, we want to provide a critical assessment of the relevant theoretical approaches to L2 and L3 acquisition and offer a new theory, called the Natural Growth Theory of Acquisition (NGTA). The Natural Growth Theory is informed by natural phonology on the one hand, and complexity theory on the other. The Natural Growth Theory of Acquisition is holistic in the sense that it incorporates each and every aspect of the acquisition process. It assumes a gradual dynamic emergence of Ln phonology, shaped by the input from L1 and other L's, and influenced by typology, universals, and context. It qualifies the impact of input on the basis of the type and token frequencies of its elements. It considers the universal, typological and language-specific aspects of the growth. It is multidisciplinary. In this paper support for NGTA comes from the recent studies of phonotactics and morphonotactics (by the first author & team). General assumptions of NGTA, as well as induction from the data let us formulate a catalogue of hypotheses concerning the acquisition of clusters. The hypotheses are corroborated by the findings and explained by means of the linguistic and extralinguistic variables considered by the Natural Growth Theory of Acquisition.

Keywords: bi(multi)lingual phonological acquisition, theory of acquisition, phonotactics, morphonotactics

The acquisition of voicing/length contrast of stops in a trilingual child

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This study investigates the acquisition of stops in a simultaneous trilingual (3L1) child. I will discuss my findings in the context of the debate on separate language systems and cross-linguistic interaction (CLI) by looking at the voicing contrast/closure duration. The voicing contrast for monolingual children acquiring a language with short-/long-lag voice onset time (VOT) contrast seems to be present around 2;0 (Snow, 1996), while lead voicing is not produced consistently by children aged 5;5 and older (Khattab, 2000). The acquisition of VOT is well studied in bilingual children (e.g., Kehoe et al., 2004). However, 3L1 acquisition has received little attention so far. Mayr and Montanari (2015) examined the VOT in two English-Spanish-Italian children (6;8 and 8;1); they showed evidence for CLI and discussed their findings in terms of number and type of input providers. The database for my study is a longitudinal case study of a 3L1 child growing up in Germany acquiring Italian, Standard German and Swiss German. All three languages differentiate stops based on different factors. Swiss stops can be categorized by closure duration as fortis or lenis, while Standard German and Italian differ in their VOT pattern: German voiceless stops lie in the long-lag range, while voiced stops are produced with short-lag VOT; Italian voiceless stops are produced with short-lag and voiced stops with lead voicing. I will present naturalistic data (2;0-2;9) for the three languages. Recordings were transcribed and VOT/closure duration was analyzed with *Praat*. Preliminary results show different development in all languages but with a tendency of transfer from German into the other languages. The Italian VOT values approach a shot-lag/long-lag distinction, while the Swiss stops seem to develop a VOT distinction. German shows a decelerated but typical development with an overshoot for voiceless stops.

Keywords: trilingualism, stops, cross-linguistic influence, German, Italian, Swiss German

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Language proficiency of a bilingual English-Greek person with aphasia compared to her healthy sibling

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Bilingualism is considered to be a significant factor in the linguistic performance of people with aphasia. Another important variable in the assessment of bilinguals is the pre-morbid language exposure in L1 and L2 language proficiency. However, the relationship between bilingualism and aphasia is more complex. This paper analyzes whether anomia is a result of the stroke or a factor of bilingualism. The aim of the study is to compare the performance of a bilingual person with aphasia (PWA) to the performance of her healthy sibling of the same background (sex, education, environment) on a number of language comprehension, language production and cognitive tasks, in English and Greek, and to investigate potential influence of pre-morbid bilingual language proficiency on post-morbid abilities. Results (see table 1) indicated that both participants showed similar levels of performance accuracy on cognitive tasks such as the Ravens Coloured Progressive Matrices test, but major differences between assessments of linguistic competence for Greek. The results, also, revealed that bilingualism has a crucial effect on the performance of the PWA because of continuous codeswitching from Greek into English. This study emphasizes the need to take into account exposure of the L1 and L2 in PWA and controls, and of-course the plasticity of the brain after a stroke.

Table 1. Performance of bilingual person with aphasia (PWA) compared to the performance of her healthy sibling

Task	**PWA**		**Healthy**	
	Greek	English	Greek	English
Sentence Repetition Test	0/32	19/60	27/32	57/60
Ravens Coloured Matrices Test	25/60	-	25/60	-
Greek Object & Action Test- Naming	21/74	60/79	62/74	73/79

Keywords: post-stroke aphasia, bilingualism, language impairment

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Acquiring a moving target

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Following the typical definition of gender from Hockett (1958), genders are only visible through agreement between the noun and other words. From Hocketts definition it also follows that declensional affixes on the noun itself are not considered a gender marker even though they often co-vary with gender. In this view Norwegian may be considered to have three genders; masculine, feminine and neuter, but also, as the definite singular suffixes in Norwegian show a threeway distinction corresponding to the gender classes, several studies take the suffixes to be reliant cues in the acquisition of grammatical gender in Norwegian (Ragnhildstveit, 2017; Rodina & Westergaard 2013 a,b). Though recent studies suggest that femininum is lost in Norwegian, while the three-way distinctions of the definite suffixes are retained to differing degree in differen dialects (see for instance Busterud et al., submitted). A consequence of this is that L2 learners may potentially be exposed to variation in the input and that there now is a mismatch between gender agreement and declension on certain nouns, which challenges the view of the definite suffix as reliant cue for gender. Grammatical gender in Norwegian then constitutes the ideal background for investigating how L2 learners navigate when acquiring a moving target. The present study seeks to shed light on this by investigating how child L2 learners acquire grammatical genders and defninte suffixes in Norwegian L2. What system are they acquiring? The spontaneous speech of 6 children with Albanian or Kurdish (n=3 for each group) will constitute the data for the present study in the investigation of how child L2 speakers acquire the moving target of grammatical genders and definite suffixes in Norwegian. Preliminary findings show that the child L2 learners differ from the adult L2 writers in Ragnhildstveit (2017) in what distinctions they make.

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Speech and language development in children with cochlear implants: A longitudinal study

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The contribution of the cochlear implant (CI) to language development is undeniable: implanted deaf children are able to acquire high linguistic skills and intelligible speech over a period of time quite similar to that of normal-hearing children with the precocity of implantation and binaurality as favorable factors (Nicholas & Geers, 2007; Svirsky et al., 2000). Despite these advances, in comparison with normal-hearing children, deaf children with CI still exhibit some persistent language difficulties in relation to morphosyntax and suprasegmentals (such as prosody or speech rate, Chuang et al., 2012). Phonetic/phonological levels also have interesting idiosyncrasies in children with CI, while the lexical level seems more or less preserved. It is sensible to assume that the persistence of atypicalities is due to the fact that children with CI develop their speech and language production and perception skills under limited sensory capabilities, the input acoustic bandwidth being reduced and exploited through a small number of transmission channels. In this paper, we will first present the results of an exploratory study based on the acoustic and perceptual analysis of spontaneous language samples of young children with CI (4 recordings). In several instances, the speech productions of these children show pervasive hypo- or hyper-nasality, suggesting that phonetic nasality is poorly perceived (and contrastive phonological nasalization later acquired) in children with CI. Moreover, we observe atypical prosodic patterns, seemingly organized around lexical and nominal phrases. We hypothesize that this particular suprasegmental structuring, together with difficulties in perceiving phonetic cues such as nasality, could lead to atypical morphosyntactical development (note that several grammatical morphemes are coded through phonological nasalization in French: pays*an*-pays*anne*; manger*a*-manger*ont*). In a second step, we will describe a collaborative research project between universities (UMONS, ULB) and the "Comprendre & Parler" center for intervention, that aim to carry out a large-scale longitudinal study of language development in children with CI. During the presentation, we will discuss preliminary results (on data currently being acquired) concerning: (i) the categorical perception and the production of voiced vs. voiceless stops, and (ii) the discrimination between (and production of) oral vs. nasal vowels in normal-hearing and implanted francophone children aged 5 to 10.

Keywords: cochlear implants, child speech development, nasality, longitudinal

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A longitudinal acoustic study of a phonetic disorder affecting the production of voiced stops

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Voicing is considered as less salient acoustically and more complex to produce than other phonetic features, and frequently causes speech errors in disordered speech (Blumstein, 1973; Treiman et al., 1998). However, it is not straightforward to study voicing: the phonetic vs. phonological nature of the speech errors is difficult to determine precisely, and so is the characterization of some productions as voiced vs. unvoiced, especially in clinical applications (Lisker & Abramson, 1964; Auzou et al, 2000). This study aims to contribute to that question, by investigating the implementation of the voicing feature in a single-case longitudinal clinical study. The study was based on a 9-months longitudinal tracking of an 11-year-old boy showing difficulties in the production of voiced stops affecting both spoken and written language. Three recording sessions have been carried out three months apart, which included simultaneous acousting and nasometric recordings. The naming task was designed to elicit words including clusters starting with a voiced or unvoiced stop. The purpose was to regularly collect speech productions to perform repeated perceptual and acoustical analyses - including voice onset time (VOT) and nasalance measures. Additionally, over the 9-months tracking, a speech therapy was conducted with the purpose of improving the voiced/unvoiced distinction via specific exercices using proprioceptive and tactile biofeedback. In this paper, we will present the results of the perceptual and acoustical analyses, which point out to a benefical effect of the therapy – the subject showing an improvement in the production of voiced stops. Moreover, our analyses have highlighted some utterances qualified as “intermediate”, meaning that their characterization as voiced vs. unvoiced could not be clearly established. VOT measures on these productions revealed a specific phonetic pattern. Furthermore, some specific acoustic phenomena will be discussed, which could result from compensatory strategies spontaneously used by the subject (nasalization, epenthesis, etc.). This study contributes towards attesting the direct benefits of using acoustic analyses in clinical practice, such as diagnosis and evaluation of therapy effectiveness. However, our results also raise the question of the use of VOT as the primary cue to distinguish between voiced and unvoiced productions in the clinical context.

Keywords: voicing feature, speech therapy, acoustic, disordered speech, longitudinal tracking

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Addressing the indexical role of facial and vocal expressions

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Nonverbal language, which comprises vocal and visual cues, is worth investigating due to the indexical role these cues play in spoken communication. Two relevant forms of nonverbal language are facial expressions and prosodic features such as voice quality and voice dynamics. Voice quality, according to Laver (1980), refers to laryngeal, supralaryngeal and tense settings and voice dynamics to pitch, loudness and temporal features. Meaning effects are attributed by listeners based on facial expressions and prosodic features speakers use in producing oral utterances and, in that way, they are thought to carry a heavy communicative load. This work aims at focusing at the linguistic, paralinguistic and extralinguistic functions of facial expressions, the manual and automatic systems available to codify facial movements and the methodological procedures to analyze meaning effects cued by facial movements together with voice quality features. To analyze facial expressions, the Facial Action Coding System (FACS) created by Ekman, Friesen and Hager (2002) is used. Its analytical unit is the Action Unity, which is referred to in the concerned literature as AU. Its identification can be done manually or automatically. For the analysis of the voice quality settings and voice dynamic features, the Vocal Profile Analysis (VPA) by Laver and Mackenzie-Beck (2007) is applied. Examples of the analysis of spoken utterances, using the automatic system FaceReader from Noldus Technology, version 8, and VPA will be presented in order to demonstrate how facial movements together with prosodic features are used by speakers in utterances to convey modalities (declarative and interrogative), prominences related to discursive emphasis, attitudes (assertive, agressive and submissive), basic emotions (hapiness, sadness, anger, disgust, surprise, shame and fear) and primitive states (valence, ativation and control). Contrasts in perceiving meaning effects cued by facial expressions which are determined by extralinguistic factors such as culture, age and gender are also addressed.

Keywords: nonverbal language, facial expression, facial automatic analysis, prosody, voice quality

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Prosodic features in anaphora resolution: A comparative study on Italian and Swedish

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In the present study, we explore how prosody affects the resolution of an overt pronoun in a sentence like (2), to either the subject or object referent of a preceding sentence (e.g., (1)), in Italian (a null subject language) and Swedish (a non-null subject language). We tested 28 native Italian speakers and 28 native Swedish speakers in a production task and in a control interpretation task. Italian overt pronouns are usually assigned to objects and null pronouns to subjects ("PAS" - Carminati, 2002), while Swedish overt pronouns leave a measure of ambiguity in antecedent assignment. Consequently, we expect that the Italian speakers would use prosody in a different way from the Swedish speakers, to resolve an anaphor.

(1) *Riccardo/ Diego lavorava in una clinica privata*.
'Riccardo/ Diego worked in a private clinic.'
(2) *Riccardo ha conosciuto Diego quando lui lavorava in una clinica privata*.
'Riccardo met Diego when he was working in a private clinic.'

The results show that the Italian speakers produced a longer inter-clausal pause and a more prominent pronoun (in terms of relative length, average F0 range and relative intensity) with subject instead of object antecedents. In contrast, the Swedish speakers produced a longer inter-clausal pause and a more prominent pronoun (in terms of relative length and average F0 range) with object instead of subject antecedents. Furthermore, in the interpretation task, the Italian speakers followed the PAS, but the Swedish speakers unexpectedly assigned overt pronouns to subjects. These findings suggest that Italian and Swedish speakers use prosodic cues in an opposite way and that this reflects opposite underlying patterns in pronoun resolution, between the two languages.

Keywords: monolingual speech, anaphora, null subject parameter

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Narrative skills of bilingual school-aged English-Greek children: Preliminary results

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Narrative competency is an important predictor of academic success and a powerful clinical marker of communication impairment (Botting, 2002). Narratives are also crucial for social interaction in children. Bilingual children are a heterogeneous group with regards to linguistic competency and literacy. Little is known about the attainment of narrative skills in bilingual English (L1) – Greek (L2) children attending schools in both languages in an English speaking country. Here, we investigated the narrative skills of school-aged children using standardised and comparable story-stimuli. While results of a cohort are currently analysed, here we present two school-aged children of Greek origin (a girl aged 7;5; boy 7;4), residing in an American-English speaking environment and attending school in both L1 and L2, assessed using the Renfrew Bus Story (Refrew, 1997) and a Greek adaptation on two different occasions within a week. Narrative samples were analysed for information measures, mean length of utterances (MLU, 5 longest utterances), number of subordinate clauses, story length, semantic diversity and other qualitative measures. Results indicated that children performed within norms in both languages in most cases; yet their profile was dissimilar in specific parameters. In both, higher performance was observed in L1 information score compared to L2, as well as code switching within L2 narration only. The pattern of MLU and story length was reversed between L1 and L2 in these 2 children, as shown in Table 1. Results showed that narrative competency can be attainable in bilingual children attending educational settings covering L1 and L2. Measurements of story-telling could be informative of language production and code switching mechanisms. Although responses were within the norms, specific measurements allowed distinguishing differences between the two participants of similar age (Gutiérrez-Clellen, 2002). Further data is currently analysed from English-Greek bilingual children.

Table 1. Performance of bilingual children on English and Greek version of Bus Story Test

	Girl (7;5)		**Boy (7;4)**	
	Greek	**English**	**Greek**	**English**
Information score	29	43	43	44
5 Longest MLU	16.2	23	23	16.4
Subordinate clauses	5	2	2	0
Story length	12.7	17.3	17.3	12.8

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The use of referential expressions by a trilingual German-Spanish-Catalan child

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Research on trilingual language acquisition is still in its infancy. Until now very few studies have focused on linguistic data (Arnaus Gil & Müller, 2018) and no studies have addressed reference management. Previous studies investigating reference management in monolingual children have revealed that monolingual children produce ambiguous references until a relatively late age (e.g., Hendricks et al., 2014). Moreover, various studies with unbalanced bilingual children showed an overuse of referential expressions (over-specification), in the sense of choosing expressions that provide more information than the addressee needs to identify the antecedent (see Álvarez, 2003; Andreou et al., 2015; Serratrice, 2007). The present study investigates reference management of an early trilingual German-Spanish-Catalan child for a period of 13 months from the age of 4;7 to 5;10. The dataset consists of 18 recordings per language (video and audio) with spontaneous speech productions in playing situations. This offers not only information about how a trilingual child uses referential expressions but also insights into the developmental steps during language acquisition. The results from the narratives in German, the weaker language of the child, revealed no instances of ambiguous reference and very few instances of over-specific expressions. Over-specification occurred only in earlier recordings and was not attested at the end of the data collection period. The lack of ambiguity and very few instances of over-specification is in contrast to reults of studies on monolingual and bilingual children and demonstrates that there are no negative effects of trilingualism in the acquisition of referential expressions. On the contrary, the analysed narratives suggest an accelerated development. Further studies with a larger number of children are necessary to confirm this pattern and to identify whether or not this pattern is due to trilingualism.

Keywords: early trilingual language acquisition, reference management, longitudinal study

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Problems in speaking English in the perception of younger and older adults learning the language as an L2

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The skill of speaking a foreign language fluently, accurately and communicatively tends to be considered by learners both the most needed and the most challenging aspect of foreign language learning in adulthood. Students realise very early that flawless and efficient oral communication appears to be difficult, not only linguistically, but also cognitively and socio-affectively. Among problematic areas related to speaking, scholars usually list the following: fear of language mistakes, shyness, anxiety, lack of confidence, lack of motivation to interact and lack of ideas to share. The aim of the present study is to investigate what problems in speaking English are identified by Polish adult learners of English in their early twenties (university students) and those in their sixties and seventies (participants of courses for seniors) with a focus on the similarities and differences between the age groups, that may provide an insight into the change of perspective on problems in oral communication in L2 evident in the views of different generations of learners. In order to investigate the issue, a questionnaire was designed in which about a hundred younger and the same number of older adults were inquired about the importance of being able to speak English accurately and fluently, problematic areas with developing and using the skill of oral communication in L2, possible strategies of dealing with the difficulties mentioned and the kind of help needed from the educator. Knowing the perspectives, educational solutions to the problems can be suggested for each age group and for each cohort.

Processing correlates of verb semantic complexity

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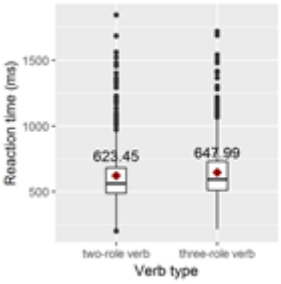
Predicate decomposition theory and construction grammar make distinctive assumptions of verb representations. Predicate decomposition hypothesizes that primitive predicate is encoded in verb representations and suggests that accomplishment verb is more complex than activity verb (Levin & Rappaport Hovav, 2005; McKoon & Love, 2011). By contrast, construction grammar hypothesizes that participant role is encoded in verb representations (Goldberg, 1995), which implies that verb with more participant roles are more complex. However, it is not clear which one of these contrasting theories on verb semantic complexity would make a better prediction on processing difficulty. Two experiments were conducted to answer this question. Experiment 1 investigated the activation of verb representation by conducting a lexical decision task with 38 native English speakers. Experimental items are: two-role/accomplishment verbs (e.g. *break*), three-role/accomplishment verbs (e.g. *assign*), two-role/activity verbs (e.g. *hit*), and three-role/activity verbs (e.g. *wipe*). Other variables such as length, frequency and number of argument structures were either matched or evaluated together with verb condition in a linear mixed effect model. The results show that three-role verbs have significantly longer reaction times than two-role verbs (p=0.035); whereas there is no significant difference between activity verbs and accomplishment verbs (p=0.078). Experiment 2 examined the access and use of verb semantics in online sentence processing by conducting a self-paced reading task with 32 native speakers. Experimental sentences were created with the same verbs in Experiment 1. The results show that three-role verbs yield significantly longer reading times than two-role verbs (p=0.041), whereas there is no significant reading time difference between activity verb and accomplishment verb (p=0.953). The above findings jointly suggest that participant role information is more likely to be stored in verb representation and accessed during online sentence processing, as proposed by construction grammar.



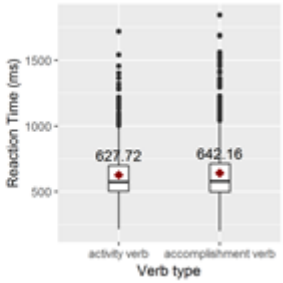
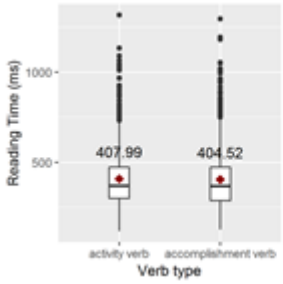


Figure 1. Reaction times in Experiment 1



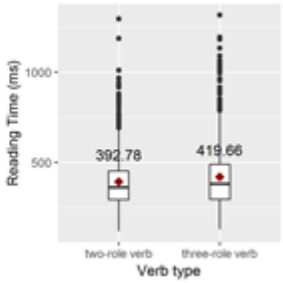


Figure 2. Verb reading times in Experiment 2

Keywords: verb, mental representations, processing time

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Mobility turns for achieving mutual orientation: Lingua Franca interaction in an Asian campus tour

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This conversation analysis study examines achievement of mutual orientation to focal objects by guides and visitors using Japanese as a lingua franca during a campus tour. It builds on research in diverse mobile situations, focusing on the "mobility turn" as a semiotic resource (Haddington et al., 2013; Hosoda & Aline, 2018). Broth and Lundström (2013) showed how tour participants construct physical places and establish objects in and through mobile interaction, and De Stefani and Mondada (2014) highlighted participant use of multimodal practices in achieving action through deployment of questions and comments. The video-recorded data come from a 40-minute tour of a Taiwanese university in which two students acted as guides for an American professor of Japanese. Japanese was selected for interaction by the participants because the students' major was Japanese and the professor was proficient in Japanese. They had no other common language. Sequences in which the guides and visitor stopped to discuss objects became the focus of analysis and these sequences revealed that initiation of attention to focal objects was achieved through cessation of forward movement, body rotation, mutual gaze orientation, deictic gestures, and questions beginning with deictic expressions. As the visitor stopped, the guides, who were constantly paying attention to the visitor's movement and gaze direction, moved their gaze to the object the visitor was at that moment orienting to, thus achieving mutual orientation to the materializing surround (Goodwin, 2000). The participants' behavior of allowing the visitor to initiate discussion of a focal object contrasts with tours in previous research where experienced guides called attention to focal objects (De Stefani & Mondada, 2014). The findings demonstrate that both the activity of transitioning between locations through walking and the related language produced are pivotal resources for achieving mutual orientations to focal objects during mobile interaction.

Keywords: mobility turn, lingua franca, mutual orientation

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Literate and linguistic features of Chinese EFL learners' narrative versus expository writing

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This study evaluated the narrative and expository English writing corpus from 20 intermediate-to-advanced level Chinese college students. Writing samples were analyzed at three linguistic levels: the use of literate words (elaborated noun phrases, conjunctions, adverbs, and mental linguistic/ cognitive verbs), the degree of sentence complexity (mean length of T-units and clausal density) and the use of subordinate clauses (nominal, adverbial and relative clauses). Results first showed a genre effect on literate word use but not on utterance length and clausal density. Specifically, there were more elaborated noun phrases and conjunctions in expository, but more adverbs in narrative. Results also showed a genre effect on the use of relative clauses but not on other clauses. Finally, a strong correlation between literate word use and the production of complex syntax was found after controlling for the effects of genre. These results highlight the need for genre-dependent writing instruction to make students aware of the different language resources expected across genres as specific contexts of communication.

Keywords: narrative, expository, writing, second and foreign language, linguistic features, genre

The acquisition of dislocation and the topic-comment relation: A developmental study of French

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The aim of this paper is to investigate whether for dislocation, a construction with a topic-comment configuration (Horváth, 2018; Lambrecht, 2001), children already have an adult-like concept of topic or whether it develops from less abstract forms like syntactic functions do (Diessel, 2013; Tomasello, 2000, 2003). We conducted a developmental, longitudinal analysis of three children between age 1 and 3;5 from the Lyon corpus. We extracted all the dislocations produced by the caregivers and the child, using the extraction criteria of De Cat (2004). Children's dislocations in our data follow a three-stage process. First, as shown by Jourdain and Canut (2018) they use a pivot schema (Tomasello, 2003), with a dislocated pronoun *ça* 'that', with the verb *être* 'be', which is sometimes omitted. At this stage, all dislocations attach a label or a permanent property to an entity. In stage 2, there is a diversification in the verbs used in dislocation, mostly used with the first-person pronoun *moi* 'me'. At stage 3, they diversify the verbs and the dislocated constituents in their constructions. We will show that the diversification process depends on the diversity of verbs and dislocated constituents in the input. Our results suggests that the topic-comment relation seems first to be limited to a specific theme-property or theme-label relation. Then, children extend their concept of topic to experiencers and agents, but only at the first person. It is only at stage 3 that their concept of topic includes the different categories found in adult language. Therefore, we show that children do not seem to have an abstract concept of topic-comment relation at the beginning of language acquisition, but they develop it from a more concrete labeling or property-denoting function.

Keywords: dislocation, French, input, pivot schemas, interaction, information structure

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The influence of native language phonological competence on novel lexical tone perception in young and old bilinguals

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Studies on the effects of bilingualism on nonnative speech perception have yielded contradicting results. Some studies report a bilingual advantage in language learning in adulthood (Antoniou et. al., 2014), while others find no bilingual advantage (Archila-Suerte et. al., 2014). It is also unclear how bilingualism modulates speech perception in old age. Nonnative speech perception relies upon individuals' sensitivity to phonetic variation (Best & Tyler, 2007). This, in turn, could be influenced by the phonological sensitivity established in the L1 and/or L2 of bilinguals. Evidence suggests that even young early bilinguals who appear proficient in their native languages demonstrate varying speech perception aptitudes in those languages (Pallier et al., 1997). Considering the above, nonnative speech perception in bilinguals could be influenced by the phonological competence (PC) of their native languages. PC measures how sensitive an individual is in distinguishing competing speech contrasts in a language. We assessed this by examining PC in Tamil and in English across 63 Tamil-English bilinguals of two age groups (young: 20-35 years old and old: 55-70 years old). We then investigated if PC in the two languages influenced nonnative Mandarin lexical tone perception. English and Tamil gating tasks, developed according to Sebastián-Gallés and Soto-Faraco's (1999) design, were successful in distinguishing individuals of high and low PC. PC in subjects' first language (Tamil) was found to strongly predict Mandarin lexical tone perception significantly more than PC in English for young bilinguals. However, combined PC in both languages were found to strongly predict lexical tone perception in older bilinguals. The findings suggest that nonnative speech perception could be influenced by phonological sensitivity in native languages across the lifespan and that combined PC have a stronger influence on nonnative speech perception with increasing age.

Keywords: bilingualism, phonological sensitivity, speech perception

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The homonogenization of ethnic differences in Singapore English: A consonantal production and perception study

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Past research on Singapore English has shown that there are specific segmental and prosodic patterns that are unique to the three major ethnic groups in Singapore (e.g. Tan, 2001, 2002, 2010). These features have been highlighted as the 'stereotypical' ethnic markers of Singapore English speakers, therefore assuming an influence from the speaker's 'ethnic' language. Studies have attributed these differences to substratal influences where the speakers' phonological inventory from their 'native' language are assumed to have influenced their English (e.g. Tan, 2002, 2010). However, this presumes that speakers would have acquired their ethnic languages before English and that the speakers are equally proficient in English and their substrate 'ethnic' language. This is far from the reality of the Singaporean people; recent sociolinguistic research has shown that Singaporeans are becoming increasingly English-dominant (see Cavallaro & Ng, 2014) and it is argued that Singaporeans could consider English as their mother tongue and the only language they are proficient in (Tan, 2014). Hence, this study seeks to investigate to what extent a less dominant ethnic language would affect the phonology of a speaker's English. For the study, consonants [f], [θ], [t], [t^h], [v] and [w] were chosen because of their salient segmental features in Singapore English. It was observed that there was an overall pattern where consonant production and perception are generally moving towards homogenization, regardless of ethnicity. However, where there is deviance, Tamil speakers were the most disparate in their production and perception of the consonants, which indicates that they are the most phonetically different relative to the other two groups.

Keywords: speech production, perception, substratal influence

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Hemispheric asymmetries in the processing of opaque compounds: A cross-modal priming evidence from Polish (L1) and English (L2)

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The aim of our study was to examine the processing of opaque compounds in L1 (Polish) vs. L2 (English) using cross-modal priming with lexical decision and the divided visual half-field paradigm. Previous attempts to identify the source of cerebral asymmetries included the study of metaphors (Faust & Mashal, 2007; Prat et al., 2012), idioms (Laurent et al., 2006) or irony (Giora et al., 2000), and yielded ambiguous results (see Diaz & Eppes, 2018 for an overview). To enlighten this issue, we tested two independent accounts: (i) concerning the relationship between lateralization and salience (the Graded Salience Hypothesis; Giora et al., 2000), and (ii) concerning the involvement of integration/predictive mechanisms in cerebral hemispheres (Federmeier & Kutas, 1999). The left cerebral hemisphere (processing the information in the right visual field) is traditionally associated with syntactic computations and language production, while the right hemisphere (processing the information in the left visual field) is assumed to be more sensitive to figurative language (Shields, 1991; Van Lancker-Sidtis, 2006). The link between bilingualism and lateralization was chiefly studied with the use of idioms (Cieślicka & Heredia, 2011). The choice of opaque compounds, however, can help disentangle the competing predictions of the two accounts stated above as in the case of compounds – unlike in idioms – one can find both primes to the figurative meaning (e.g., *hair – ponytail*, i.e. figurative primes) and primes whose meaning is related to all the constituents (e.g., *horse – ponytail*, i.e. literal primes). The results obtained from 48 non-native but proficient speakers of English (L1 Polish) reveal that: (i) in L1, the figurative primes were processed significantly faster by the right hemisphere, and the literal primes – by the left hemisphere; (ii) in L2, both figurative and literal primes were processed significantly faster by the left hemisphere. The outcomes indicate that language is stored in the fashion sensitive to the order of acquisition and that the integrative properties of the right hemisphere are hampered in L2.

Keywords: opaque compounds, lateralization, figurative and literal language, bilingualism

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What constitutes "a good artwork presentation" in a foreign language?

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The purpose of this study is to identify the required linguistic and nonlinguistic elements to give an effective artwork presentation. Most art students have chances to showcase their work with a talk, most commonly at critique sessions. Although they are essential for art students where they can introduce their works, little research has been done on the method of an artwork presentation; in contrast to research progress of academic presentation and business presentation (Oshima, 2002; Rendle-Short, 2006). In particular, there is almost no structured study or systematic teaching method of artist presentation in a foreign language in Japan since L2/FL artist talks are not very common although an increasing number of people are trying to give a speech in their L2/FL. To answer the research question "What constitutes a good L2/FL artwork presentation?", videotaped presentations were qualitatively analyzed by an artist lecturer, a communication specialist, a linguist, and an ESL/EFL researcher. They identified elements of excellent presentations from their point of view. The findings show that linguistic fluency is not the most crucial factor in constructing effective presentations, but the way of speaking, visual aids, and nonlinguistic elements also play essential roles. More detailed results of these analyses will be given and discussed at the conference.

Keywords: artwork presentation, speech presentation, L2/FL speech, ESL/EFL teaching

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Applying the Native Language Magnet Theory to an L2 setting: Insights into the GC adult perception of L2 English

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A model of early speech perception that could apply to second language (L2) acquisition is the Native Language Magnet model (NLM, Kuhl, 2000 a,b; 1994). The model suggests that linguistic experience of a first language (L1) may interfere with the phonetic learning of an additional language (Flege, 1995; Iverson et al., 2003; McCandliss et al., 2002; Zhang et al., 2005). Applying this model to the Greek-Cypriot (GC) context implies that the language users will encounter several difficulties with the phonological system of L2 English. For the purpose of this study, 130 GC students between the ages of 17-28 attending tertiary level education had to undertake two auditory perceptual tasks. The first involved a phoneme identification task (in line with Baker, 2006) in which students had to listen to a minimal set consisting of five words differing in only one sound and select the word they could hear twice. The second was a word identification task administered as a two-alternative forced-choice task with a circling response mode (in line with Kkese, 2016). Students had to listen to a target word and its foil and respond by circling the word they had heard. These kinds of tasks, focused on both consonants and vowels, were used to eliminate any semantic information from the context. Overall, the results indicated that the participants performed slightly better when dealing with vowels compared to consonants. The most difficult consonants for perception appeared to be fricative, plosive and nasal consonants. In terms of vowels, the participants had problems with the perception of vowel length. Age, gender of the participants, L2 English proficiency, years of L2 instruction and use are statistically significant factors for speech perception. The findings are in line with the NLM model suggesting that speech perception of L1 and L2 contrasts may be negatively correlated.

Keywords: native language magnet theory, second language acquisition, speech perception, consonants, vowels

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Foreign language acquisition of Polish (mor)phonotactic consonant clusters by Russian and Ukrainian speakers

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The Polish language is considered to be a consonantal language with highly developed morphology, and so do Russian and Ukrainian. Despite the fact that all three languages belong to the Slavic group of languages, the phonotactic patterns of the languages are quite different. Morphological criteria will be analyzed through the prism of morphonotactics which represents a subfield of morphonology proposed by Dressler and Dziubalska-Kołaczyk (2006). It covers two integrated areas of phonology and morphology and studies the co-occurrence of sounds at morphological boundaries. For instance, a consonant cluster *-nd* is phonotactic in the word *band* but it is morphonotactic in the word *planned.* The influence of morphonotactics has already been revealed during the research on first-language acquisition, lexical processing experiments and psycholinguistic studies (Dziubalska-Kołaczyk et al. 2015; Zydorowicz, 2010). Thus, the aim of the study is to analyze the influence of universal phonotactic and morphonotactic preferences in the process of language acquisition. The acquisition of consonant clusters will be investigated in terms of markedness. It is hypothesized that phonotactically preferred (unmarked) consonant clusters will be more accurately produced and less likely to be reduced during the speech production than dispreferred (marked) ones. Phonotactic markedness will be analyzed by the means of the NAD Phonotactic calculator designed Dziubalska-Kołaczyk et al. (2007, 2014). A pilot study is planned investigating the production of consonant clusters by Russian and Ukrainian students who have just started learning Polish.

Keywords: language acquisition, Polish, Russian, Ukrainian, consonant clusters, phonotactics, morphonotactics

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Development of word structure production skills: A comparative study of narratives in 4- and 6-year-old children

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Phonological development might be discussed from two points of view: a) as a progress in linguistic competence and b) as a development of linguistic performance; the latter is related to skills in a production of complex word phonological structures (WPS). Among multiple studies in both issues, child language data related to 3-6 years of life are the scarcest. The aim of our study is to investigate speech development from the perspective of dynamic interaction between child speech production capacity and the least efforts tendency caused by individual resource restrictions. The study was based on a corpus data of Russian monolingual typically-developing children: Subcorpus-1 included 38 fictional stories of 4-year-old (~53 months) children (N=19), and Subcorpus-2 included 24 fictional stories of 6-year-old (~68 months) children (N=12). By means of specially designed software for a text analysis, the words were structurally analyzed and classified into 40 groups according to the basic types of Russian word phonological structures; their percentage distribution was estimated. A comparative statistical analysis (χ2-criterion) of the WPSs distribution in narratives in two age-groups evidenced that the 4-year-old children tended to produce in narrative speech the less complex WPSs. The children produced significantly more 1- and 2-syllable words and significantly less 3-5-syllable words. Significant differences were revealed in 9 WPSs from the total 29 ones. A comparative analysis of WPS distribution in the list of lemmas resulted in fewer between-group distinctions. Thus, while it is usually stated that the basic word phonological structures are fully developed during the 2^{nd}–3^{rd} years of life, our data give evidences that 4-year-old children still tend to use more simple word structures in narrative speech when compared to 6-year-old children.

Keywords: phonological development, whole-word structure, syllable

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A multimodal approach to (Dis)fluency in L1 and L2 discourse

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Non-native discourse is often characterized as more "disfluent", (i.e. frequent use of filled and unfilled pauses, slower speech rate) than native discourse (Tavakoli, 2011). Speakers tend to produce longer pauses in their L2 than in their L1(Riazantseva, 2001; Tavakoli, 2011), as well as a higher rate of hesitation phenomena in L2(Fehringer & Fry, 2007; Gilquin, 2008). This can be explained by the learners' limited proficiency (Cenoz, 1998). However, a functionally ambivalent approach to (dis)fluency (supported by Crible et al., 2017; Götz, 2013; Pallaud et al., 2013) points out that markers which seem to disrupt speech at the formal level could also be viewed as having communicative and discursive functions. A multimodal approach to L1 and L2 discourse (see Gullberg, 2006) could give us a new perspective on the ambivalent functions of (dis)fluency markers and their use by L1 and L2 speakers. In line with this multimodal approach, the current study explores the production of (dis)fluency markers in tandem interactions between eight pairs of French and American speakers in L1-L1 and L1-L2. The video data (80 minutes) was transcribed and annotated using ELAN (Sloetjes & Wittenburg, 2008). Our analyses illustrate how the same forms can be 'disfluent', disruptive, thus reflecting production difficulties but can also provide communicative 'fluency' during discourse planning. We further demonstrate that the disparity between L1 and L2 (dis)fluency is qualitative rather than quantitative. L2 speakers produce different types of (dis)fluency markers with a variety of accompanying multimodal features. Speech suspension and cognitive effort characterized by verbal (dis)fluency markers (Bortfeld et al., 2001) are also conveyed in facial expressions, gesture, and gaze. The audio-vocal and visual-gestural channels are thus coordinated. Our results highlight the multilevel and multimodal dimensions of (dis)fluency and provide crucial cues for a better understanding of these phenomena in L1 and L2 productions.

Keywords: (dis)fluency phenomena, L1 and L2 discourse, multimodality, videotaped corpora

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As far as the eye can see: Event conceptualization in German and Korean native speakers and second language learners

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German and Korean, the two languages contrasted in this study, differ considerably in how spatial motion events are conceptualized. While a German speaker expresses the Path of a spatial event in prepositions or particles (e.g., *in* 'in' or *auf* 'on'), a Korean speaker does so using verbs (e.g. *nem-* 'to cross', *nayli-* 'to descend'). Moreover, these languages differ in ascribing semantic roles of Figure (the moving object) and Ground (the reference object) of a spatial event. In German, there is a difference between (a) the pen cap moving to the pen or (b) the pen moving to the pen cap: (a) *Gib den Stöpsel* [Figure] ***auf*** *den Stift* [Ground] 'Put the cap [Figure] on the pen [Ground]' versus (b) *Gib den Stift* [Figure] ***in*** *den Stöpsel* [Ground] 'Put the pen [Figure] in the cap [Ground]'. In Korean, the same Path verb (***kkita*** 'tight-fit') is used for describing both (a) and (b), regardless of the changing Figure and Ground roles. We tested these grammatical differences in two different experiments: (1) a linguistic description task and (2) an eye-tracking memory experiment. Our participant groups consisted of native speakers of German and Korean, and Korean native speakers learning German as their second language. The results of both experiments show that conceptual representations of spatial events are significantly influenced by the grammatical structures of the speakers' native language (in both native speakers and second language learners). While German speakers focus more on the ongoing movement, Korean speakers pay more attention to the result of the spatial events.

Keywords: language and cognition, cross-linguistic comparison, second language learning, event conceptualization

Applying the Perceptual Assimilation Model to the L2 acquisition of Japanese pitch patterns

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Japanese words have lexically predefined pitch patterns with High and Low pitch assigned on each mora. L2 learners of Japanese are known to struggle with this, and incorrect pitch use is a major contributor to L2 speech errors (Hirata, 2015; Iimori, 2014). Paradoxically, there appears to be little work that accounts for these findings through L2 speech acquisition models such like the Perceptual Assimilation Model (PAM: Best & Tyler, 2007). The current study tested the compatibility of the PAM model with L2 Japanese pitch acquisition and investigated whether there is a transfer of L1 intonation to L2 pitch categorical perception and production (as the PAM would predict). 6 elementary, 8 advanced adult English-native learners of Japanese and 8 adult Japanese native speakers participated in a perception (tone identification) and production (instructed read-aloud) test. Stimuli were a combination of real and nonce trimoraic Japanese words with 4 different pitch patterns, presented in isolation and in a sentence. Results from the perception test revealed no significant difference between native and non-native perceptual accuracy. The production test revealed that only patterns of a Low-High-High pitch configuration, which lack prosodic prominence, were significantly more difficult to produce for elementary and advanced learners in comparison to native speakers. Phonetic analyses further showed that even when phonologically (and audibly) similar native speech could be discerned from non-native speech because of a significantly delayed f0 peak in high-pitched morae, confirming earlier findings (Hasegawa, 1988; Sakamoto, 2011). The overall results suggest that the PAM model and L1 intonation only partially predict L2 acquisition of Japanese pitch patterns. The nature of English stress and word prominence appeared to be an equally strong factor. L2 speech acquisition models should thus account for multiple L1 prosodic elements in their predictions of L2 suprasegmental acquisition.

Keywords: Japanese, pitch, L2 speech, L1 transfer, PAM model

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Children's online processing and offline interpretation of anaphoric personal pronouns: Evidence from an eye tracking study

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Studies that work with offline methods (e.g. sentence-picture matching) suggest that children up to the age of six have difficulties in understanding pronominal expressions (Sekerina, 2015). Online methods such as eye tracking on the other hand allow us to investigate the children's abilities regarding the pronominal interpretation in real time, by which we gain more detailed insights in the development of pronominal reference (Sekerina, 2015). Although there have been many studies related to morphosyntactic restrictions, semantic distinctions, discourse-pragmatic factors (including information structure and order-of-mention) that influence children's interpretations, "we still have limited understanding of when children become able to interpret personal pronouns anaphorically, as referring to highly accessible or previous mentioned (GIVEN) referents" (Skarabela & Ota, 2017: 256). This eye tracking study uses the visual world paradigm (Tanenhaus et al., 1995) and aims at investigating children's ability to interpret personal pronouns anaphorically. Three- to four-year-old monolingual German children (n=25) and an adult control group (n=25) participated in an eye tracking experiment (online processing) that includes a sentence-picture matching task (offline interpretation). Participants listened to a narrative text and saw pictures of potential referents that were introduced on a screen throughout the story. Test-items consisted of critical sentences that were manipulated regarding the realization of the anaphor (repeated names vs. personal pronouns). Participants' eye movements were recorded. Additionally, they were asked to name the picture that fitted best. The talk will present the results of the study and aims at answering the questions, whether three- to four-year-old monolingual German children are able to interpret personal pronouns anaphorically, whether there is a difference between online processing and offline interpretation and whether/how their ability differs from that of adults.

Keywords: visual world paradigm, online processing, anaphoric reference, personal pronouns, monolingual, German

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Subject-Verb code-switching between French and Spanish: Putting strong pronouns to the test

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Spontaneous and experimental code-switching data provide evidence that switches involving Determiner Phrase (DP) subjects (***this student*** *parle japonais/****cet étudiant*** *speaks Japanese*) are both produced and accepted by bilinguals from different language pairs while those involving pronominal subjects (***she*** *parle japonais/****elle*** *speaks Japanese*) are seldom found in spontaneous speech and are highly dispreferred regardless of language dominance (Jake, 1994). This has been accounted for by the 'Phonetic Form Interface Condition' which is said to prevent mixed-language complex heads involving a weak pronoun and a verb (van Gelderen & MacSwan, 2008). However, under the assumption that strong pronouns as the French or Moroccan Arabic strong pronouns in ***moi*** *dxlt* 'I went in' *or* ***nta*** *tu vas travailler* 'you go to work' behave like DPs, these sequences would be accepted because the condition would not be violated. Consequently S-V switches involving French strong pronouns (e.g. ***Lui*** *speaks Japanese*) should be accepted regardless which language provides the verb (***Lui*** *speaks Japanese/****Lui*** *habla japonés*). In order to determine whether subject strong pronouns have the same status as DPs in bilingual grammars, we have administered a Forced-Choice Task and an Acceptability Judgements Task to three groups of adult bilinguals: 10 L1 French/L2 Spanish, 10 L1 Spanish/L2 French, and 10 Heritage Spanish/French dominant. The results from the two tasks reveal that none of the three groups show a preference for strong pronouns over weak pronouns, and this is so regardless of whether the participants are French or Spanish dominant. We argue that the divide occurs between DPs and pronominal subjects and that more than due to a PF condition effect (van Gelderen & Macswan 2008), it may be due to the different status of Nominative Case and Agreement features in these two categories.

Keywords: subject-verb code-switching, determiner phrase, weak vs strong pronouns, nominative case assignment, agreement features, forced-choice task, acceptability judgement task

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Effects of simultaneous bilingual acquisition on filled pauses in French speech

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When faced with similar phones in two languages, simultaneous bilinguals have been found to have different phonetic realisations than monolinguals due to cross language influences, despite their ability to maintain language-specific differences (Fowler et al., 2008). It remains unclear, however, to what extent such cross language phonetic influences occur in the production of filled pauses (FPs), sounds like *uh* and *um* in English. This is because while FPs exhibit language-specific patterns in their distribution and phonetic form (Candea et al., 2005; Wieling et al., 2016) and thus present conflicting input for simultaneous bilinguals, their linguistic status remains unresolved, and they are well known for their strong within-speaker consistencies (Künzel, 1997). To this end, the present study examines the differences between monolinguals and simultaneous bilinguals in their use and realisation of FPs. From the recordings of spontaneous French speech by 15 female German-French simultaneous bilinguals (HABLA-Corpus: Kupisch, 2011; Kupisch et al., 2012) and 20 female French monolinguals (NCCFr: Torreira et al., 2010), instances of FPs (*euh* and *hum*) were identified. Midpoint frequencies of the first three formants were extracted for the vocalic component of each token alongside its duration. Data were analogously collected for FPs in the German speech of the simultaneous bilinguals (*äh* and *ähm*) for comparison. The acoustic properties and distribution of FPs were then compared between speaker groups. Results show that the simultaneous bilinguals used more *hum* than the monolinguals in French, while the acoustic results indicate higher variability both between and within the speaker groups. The role of discrepancies in early language input in shaping these sounds, as well as the nature of FPs themselves will be discussed in light of these findings.

Keywords: filled pauses, simultaneous bilinguals, hesitation phenomena, cross language phonetic influence

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Bidirectional grammatical stress in a free lexical stress system

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The present study discusses a hybrid metrical system found in Ukrainian. We argue that Ukrainian represents a typologically rare bidirectional stress system with internal lapses, and that its complexity poses a challenge for current theories designed to account for such systems. The Ukrainian data, which as yet has not been discussed in the generative literature, come from standard descriptive sources (e.g. Nakonečnyj, 1969) and from two recent acoustic studies (Łukaszewicz & Mołczanow 2018, a, b). In accordance with these sources, Ukrainian has both the rightward and the leftward rhythmic stress iteration pattern, depending on the distance between lexical stress and the left/right edge of the word. Secondary stresses alternate in words which are long enough to accommodate them; lapses are tolerated, clashes are avoided. Possible prominence patterns in six-syllable words are schematized in (1). Secondary stress assignment does not depend on the morphological structure of words and is not subject to derived environment effects (2).

(1) [ˌσσˌσσˈσ], [ˌσσˌσˈσσ], [ˌσσˈσσˌσ], [ˌσˈσσˌσ], [σˈσσˌσσˌσ], [ˈσσσˌσσˌσ]
(2) ˌ*velosyˈped* (‘bicycle’, N.), ˌ*velosyˈped+n+yj* (Adj. masc.) - ˌ*veloˌsypeˈd+yst* (‘cyclist’)

The overarching generalisation is that alternating rhythmic stresses in Ukrainian radiate from the edges of the word towards the syllable carrying lexical stress, and not towards the opposite end, which is typical of bidirectional, not unidirectional stress systems. We argue that the Ukrainian data cannot be accommodated by current metrical theories (Gordon, 2002; Hyde, 2016; Kager, 2001; Martínez-Paricio & Kager, 2015). The crux of the problem lies in the inability of foot-based (e.g. Kager, 2001; Martínez-Paricio & Kager, 2015) as well as grid-based (e.g. Gordon, 2002) gradient alignment mechanisms to generate mirror-image edge-based stress, as the constraint settings are compatible with either the left or the right side of the rhythmic mirror attested in Ukrainian, but not with both.

Keywords: rhythmic stress, metrical theory, Ukrainian

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Cross-linguistic influence in bilingual children: From syntax to prosody

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Studies of grammatical development have shown how Cantonese and English interact in bilingual children (Ge et al., 2017, Yip & Matthews 2007). This line of work argues that surface overlap is a prerequisite for cross-linguistic influence to occur (Hulk & Müller, 2000), and that language dominance plays a major role in determining whether such influence will occur and to what extent. Whether these principles extend to phonological development is less well understood. Here we consider the case of prosody in Cantonese-English bilingual children. Mok and Lee (2018) show that comparable cross-linguistic influence arises in the development of prosody. Some bilingual children apply prosodic templates from English to Cantonese treating Cantonese bisyllabic words as trochaic with a high-low pattern overriding the lexical tones, e.g. pronouncing bi4bi1 'baby' (low falling-high level) as bi1bi4 (high level-low falling). The high-low pattern corresponding to stressed and unstressed syllables in English is characteristic of English-dominant children, and also attested in L2 learners of Cantonese (Mak & Matthews, 2011). We interpret these instances of cross-linguistic influence along similar lines to syntactic influence. A stressed syllable in English overlaps phonetically with a high tone syllable in Cantonese, implicating structural overlap. The occurrence of prosodic templates is not attested in monolingual or Cantonese-dominant children, consistent with the role of dominance as observed in the grammatical domain.

Keywords: bilingual development, cross-linguistic influence, Cantonese, tone, stress, prosody

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Online phonetic training improves L2 word recognition

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High-Variability Phonetic Training (HVPT) (Logan et al., 1991) has been shown to be effective in improving the perception of even the hardest second-language (L2) contrasts. Most previous work with training paradigms focused on prelexical perception, using identification or discrimination tasks. Truly successful training, however, should also enhance performance at the lexical level, an issue we address here. Twenty-four adult intermediate French learners of English completed eight online sessions of HVPT on the perception of /h/. This sound does not exist in French, and French listeners confuse it with silence both on the prelexical (Mah et al., 2016) and the lexical level (White et al., 2017; Melnik & Peperkamp, 2019). In pretest and posttest participants completed a 2AFC identification task (presence vs. absence of initial /h/ in non-words) and a lexical decision task. Test items in the latter consisted of word-nonword pairs, differing in the presence vs. absence of initial /h/ (e.g. *husband* – **usband*, *officer* – **hofficer*); control items consisted of pairs differing on another phoneme (e.g. *orange* – **porange*, *darling* - **darbing*). The training sessions used the same 2AFC identification task as in pretest, but with different stimuli and with immediate corrective feedback. In identification, there was an effect of Session (pretest vs. posttest) ($F(1, 23)=41.34$, $p<.001$), with a mean improvement of 13%. In lexical decision we found effects of Session ($F(1, 23)=39.36$, $p<.001$) and Condition (control vs. test) ($F(1, 23)=73.93$, $p<.001$), and a Session X Condition interaction ($F(1, 23) = 30.87$, $p<.001$); the effect of Session was significant for test items (mean improvement: 16%) but not for control items. Thus, prelexical training improved perception not only at the prelexical but also at the lexical level. We will discuss theoretical and practical consequences.

Keywords: L2 acquisition, lexical processing, speech perception, phonetic training

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Acquiring sociophonetic variation in contexts of internal migration: Testing vowel production and perception of Italian schoolchildren

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The acquisition of sociophonetic variation has been a major topic in variationist research (Foulkes et al., 1999; Nardy, 2013; Roberts, 1997 ex multis), but very little work has been carried out in Italian. In this work, we aim at investigating the emergence of sociophonetic variation in production and perception of vowels by 100 Italian pupils aged between 6 and 10 years old in the Alpine area of Biella (Italy). Vowel variation is a strong marker for sociolinguistic identity, and it is strongly associated to a speaker's origin (Canepari, 1979). Pupils participated in a production and a perception experiment. Pupils participated in a picture naming task and in a semi-structured interview with the researcher. All recordings were transcribed in ELAN and annotated in Praat with respect to stressed vowels: F1 and F2 values of the stressed values were extracted on 5 different points through a script. In the perception test, pupils listen to 5 different Italian regional varieties reading a story, and they have to give some information about the speaker, using a questionnaire with pictures; later, they comment their answers in a further recording session. Moreover, a sociolinguistic questionnaire on dialect use within family was compiled by the children with the assistance of the researcher, and by the children's parents and, when possible, grandparents; these data also indicated who is the children's primarily caregiver at home. Mixed model analysis have been performed in SPSS to determine the impact of the different variables. Preliminary results show that a difference in front vowels starts to be determined by gender in older pupils rather than in the youngest ones (Roberts, 1997). Moreover, the dialectal background seems to play a role more on perception rather than in production of middle vowels. This also confirms that linguistic stereotypes are present also at a very young age (Whiteside & Marshall, 2001).

Keywords: sociophonetics, language variation, vowels, perception, migration

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The acquisition of new and similar fricatives by novice Bulgarian learners of Modern Greek

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This instrumental study investigates the acquisition of new and similar Greek fricatives by Bulgarian learners in non-naturalistic settings. It explores phonetic learning in the framework of the Speech Learning Model (Flege, 1995, 2002) which posits that the learnability of L2 sounds correlates inversely with their similarity to L1 sounds. The target sounds are the new interdental /θ/ and the similar sibilant /s/. The target interdental is not present in the phonemic inventory of Standard Bulgarian. In order to produce it adequately the learner has to establish a new phonetic category and to learn to implement a novel articulatory gesture. The target sibilant exists in both L1 and L2 inventories. Spectral data show that Modern Greek /s/ is between English /s/ and /ʃ/ (Panagopoulos, 1991). Bulgarian displays a two-way distinction in place of articulation of voiceless sibilant fricatives: alveodental /s/ and palatoalveolar /ʃ/. The attainment of the target sibilant requires modification of the existing L1 categories and their corresponding articulatory gestures. Eight native Bulgarian female beginner learners of Modern Greek were recorded two times: prior to pronunciation instruction (T1) and after 15 pronunciation-training sessions (T2). In addition, eight native female speakers of Modern Greek served as a control group. The data elicitation protocols comprised real words embedded in a carrier sentence. The target fricatives were analysed acoustically by measuring the four spectral moments. Both T1 and T2 learners' productions were compared to the productions of the control group to examine the approximation of the target norms. Phonetic learning of /θ/ was demonstrated by a decrease in the substitutions of the target sound and an increase in the interdental fricative realisations. Moreover, improvement in the spectral properties was registered with approximation of the respective values of the control group. Regarding the target sibilant, a trend for changes in the spectral properties without approximation of the target norms was observed.

Keywords: L2 sounds, sibilants, interdentals, Bulgarian, Greek

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Conceptual transfer in connecting events in Japanese-English bilingual teenagers' narratives

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Cognitive linguists have argued that the same events can be conceptualized and described differently in different languages (Jarvis, 2011; Langacker, 2008). Minami (2011), for example, reports that Japanese-English bilingual children used more connectives to denote temporality in their Japanese narratives, whereas they used more connectives of causal and adverse (C&A) relationship in their English stories, revealing differences in event construal in each language, i.e. preference in Japanese for describing what is happening and preference in English for focusing on the actions and reasons (Ikegami, 2006). However, few studies have compared bilinguals' use of connectives with that of their monolingual peers in each language to detect cross-language interaction in the way they connect events, and how that may change over time as children experience further bilingual language use. The current study examines if transfer is observed in how bilingual children sequence events in each language, and if there are any developmental trends. Six teenage Japanese-English bilinguals who regularly use the two languages in their daily lives told stories based on a wordless picture book "Frog, where are you?" (Mayer, 1969) in Japanese and English separately, at two sessions within an interval of two years. We analyzed if cross-linguistic influence is observed by comparing the use of connectives between bilingual and age-matched monolingual children in each language, and if the way bilinguals describe the events in each language change over time. Results show that bilingual children's Japanese narratives have significantly more expressions of C&A meaning compared with those of monolingual children, suggesting influence from English. Developmental analysis further reveals an increase in the use of both C&A connectives in the Japanese stories and temporality connectives in the English stories, indicating a bi-directional interaction between the two languages, leading to a possible convergence of the event construal patterns as they grow older.

Keywords: Japanese/English bilinguals, narratives, connectives, event construal, cross-linguistic influence, longitudinal analysis

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Building an acquisition model of Japanese syntax structures: Connecting the Rich Tree information of JMOR-based Kusunoki Treebank with CHILDES speech data

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The NPCMJ (NINJAL Parsed Corpus of Modern Japanese; NINJAL 2016) is a corpus of Japanese that is parsed for syntax, with over 30,000 released trees and online interfaces for data access. This corpus has a leaf node morphological analysis in Japanese script that loosely follows the LUW (long-unit word) standard of the BCCWJ (Maekawa et al., 2014). As an offshoot, the NPCMJ project is now creating the Kusunoki Treebank. This new resource retains the syntactic analysis of the original NPCMJ, but completely replaces the morphological base to gain compatibility with the CHILDES MOR program. Under the CHILDES MOR program, sentences in Japanese script (Kana Kanji) are romanized and parsed according to WAKACHI2002v8 (Miyata, 2013) and provided with morphological tags using the JMOR library files (Miyata & Naka, 2014). This offers a significant gold standard for bringing syntactic analysis to CHILDES analyzed data, notably by offering substantial training data for automatic methods. Applied to Japanese CHILDES data, it is now feasible to produce syntactic structure for each utterance, optionally displayed as a syntax tree, a text version, or in CHAT format with a new %rlc (root-leaf context) tier. For the %rlc tier underscores are links to the correspondingly ordered words and punctuation of the main line, with the hierarchical syntactic tree information presented in a tree root to tree leaf context format (with indexed nodes).

*CHI: mamma hoshii yo . ‧1979_2350•
%ort: マンマ欲しいよ.
%mor: n:mot|mamma=food adj|hoshi-PRES=desired ptl:fina|yo=ASSERT .
%rlc: CP-FINAL@1;IP-SUB@2;NP-SBJ@3;*speaker*
CP-FINAL@1;IP-SUB@2;NP-OB1@4;_ CP-FINAL@1;IP-SUB@2;_
CP-FINAL@1;_ CP-FINAL@1;_

The production of a CHAT format tier paves the way for CLAN analysis, which allows an extraction of the structures typical and prevalent for each age. A comparison to already existing measures like MLU stage, DSSJ score and vocabulary size will provide a comprehensive picture of development.

Keywords: syntax acquisition, Kusunoki Tree Bank, CHILDES, MOR, Japanese

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An examination of the effect of input quality on subject realization in Japanese-English bilingual children

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It has been reported that two language systems in bilinguals' minds interact in grammatical structures that involve a syntax-pragmatics interface and a partial overlap at a superficial level (Hulk & Muller, 2000). Previous studies on cross-linguistic influence (CLI) on subject argument realization have suggested that an influence takes place unidirectionally from overt to null subject languages, resulting in overuse of overt subjects. However, a limited number of studies addressed the quality of input bilingual children receive from immediate interlocutors as a source of the phenomenon, providing mixed results (Paradis & Navarro, 2003; Mishina-Mori et al., 2015). The present study examines the effect of input quality on subject realization using Japanese-English young bilingual children. Longitudinal data of three simultaneous bilingual children are compared with monolingual counterparts who match age and proficiency. All the bilingual children developed fairly balanced proficiency in their two languages, receiving balanced or more English input than Japanese. Forms and discourse-pragmatic features of subjects are analyzed to investigate if there is CLI in a predicted direction. A further comparison is made between bilingual children and their interlocutors to explore whether they display similar tendencies on the use of subjects. Analyses revealed that bilinguals used overt and null subjects similarly to their monolingual counterparts. However, they overused overt subjects more frequently than monolingual peers in the contexts where discourse/pragmatic information is sufficient and thus null forms are preferred instead. Moreover, there seems to be no influence from the interlocutors' input, which did not show any sign of overusing overt subjects. The findings suggest that (1) CLI on subject realization in Japanese-English bilingual children takes place unidirectionally, namely from English to Japanese, consistent with the previous studies, and that (2) quality of input is not a factor to explain the overuse of overt subjects among bilingual children.

Keywords: bilingual children, cross-linguistic influence, subject realization, syntax-discourse interface, input

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Expressive illocutionary acts in multilingual communities. Case study in UTA Gagauzia

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Searle (1976) identified *expressive illocutionary acts* as one of the five basic categories of speech acts, while Norrick (1978) categorized them in: 1. apologizing, 2. thanking, 3. congratulating, 4. condoling, 5. deploring, or censoring, 6. lamenting, 7. welcoming, 8. forgiving, and 9. boasting. Our study starts from the premises that most of these are under-researched in multilingual communities, the corpus for our research being selected from UTA Gagauzia (i.e. Autonomous Territorial Unit of Gagauzia), region of Moldova. This area benefits from a multilingual and multicultural environment in which 3 official languages (Gagauz, Romanian and Russian) and some unofficial minority languages (e.g. Bulgarian or Ukrainian) are spoken. While Russian is assumed as language of first use and Romanian (the state language in Moldova) is considered among the official languages, mostly due to requirements imposed by the educational and/or administrative entities, the Gagauz language is motivated by the ethnic majority. Surprisingly, the ethnic composition of the region has no correspondence with the linguistic structure of the population, the status of the languages spoken here being motivated by political or social factors, while linguistic and cultural identity is overshadowed. Therefore, people needing to speak Romanian or Gagauz utter a mix of Russian-Romanian, Russian-Gagauz or Russian-Romanian-Gagauz, making use of roughly translated phrases and adopt them as such in colloquial speech (some of them migrating into formal speech as well). In accordance with this generalized tendency, expressive speech acts fall under the same imperative, witnessing both the evolution of social relationships and linguistic transfers in multilingual communities.

Keywords: code-switching, translanguaging, expressive speech acts, cultural conventions, calque

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Cross-sectional study of phonetic inventories in Russian-Finnish bilingual children

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This study addresses phonetic inventories in Russian-Finnish bilingual children of pre-primary school age. It attempts to disentangle the characteristics of typical bilingual phonological development from those characteristics of monolinguals and children with specific language impairment (SLI). The cross-sectional study observes the evidence from 126 participants: 46 bilinguals and three control groups: 40 Russian monolinguals, 20 Finnish monolinguals, and 20 bilingual children with SLI. The study combines qualitative and quantitative methods in the framework of child language development studies, and contrastive and contact linguistics. It also takes into account language therapy approaches. The data were collected through an articulation test specially designed for Russian and Finnish. Each test session was video recorded. The participant's production of target words was transcribed, and phonological errors were analysed. Individual phonetic profiles were created for every child. Despite considerable individual variation in phonetic production, the findings suggest that, for the most part, bilinguals acquire Russian and Finnish phonetic inventories later than their monolingual peers. The difference is visible both in the speed of acquisition and in the number and nature of errors. With regard to the nature of mispronunciation, four types of bilingual mistakes were distinguished. In the very beginning of the phonological acquisition, the bilingual trajectories may resemble those of children with SLI. The study shows evidence of cross-linguistic patterns. As a result, some bilingual children may have either a Russian or a Finnish accent. However, this accent tends to gradually disappear. As predicted, bilingual language acquisition demonstrates predominantly deceleration in the acquisition of Russian and Finnish phonetic systems. Nevertheless, bilinguals showed a few cases of accelerated sound acquisition in Finnish and in Russian.

Keywords: bilingualism, phonetic inventory, mispronunciation, transfer, accent

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Rhotics degemination in Roman Italian: Between production and perception

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The degemination of rhotics is considered a sociolinguistic marker of the Roman Italian variety, usually associated with low status speakers and informality (Stefinlongo, 1999). Given the particular status of the R variable (Scobbie, 2006) in conveying socio-indexical information, we analyse if, and how, young Roman speakers produce degemination of rhotics in Roman Italian. A perceptive test also aimed at confirming the presence and diffusion of the stereotypes among Italian native speakers of different areas. 10 speakers from Rome (5 males and 5 females aged between 23 and 30) participated to a sentence-reading task, with 70 sentences of equal length and controlled prosodic contour. Each sentence contained one token with a singleton and/or geminate /r/, in stressed and/or unstressed condition. We relied on preceding vowel and consonant duration to test the consonant gemination; for a qualitative investigation of rhotic realization, we followed the protocol for rhotics by Celata et al. (2016). 70 Italian native speakers from Northern Italy and from Rome participated in a perception test: 12 selected tokens were used to investigate degemination recognition and possible linguistic stereotypes associated to phenomenon. Results show that, for rhotic duration, gemination was statistically significant. Geminated rhotics were longer than singleton rhotics. As for vowel duration, only Syllable stress was statistically significant, with stressed syllable being longer than unstressed one. Unexpectedly, no effect of gemination was found. Qualitative analysis shows, instead, a more complex picture. Intervocalic geminate rhotics seem to allow a greater range of possibilities: they can be realized mainly as a trill, but approximant, fricatives, taps, and combined realizations (trill or tap with a fricative appendix) are found too. However, a great within-speaker variety has also been observed. The perceptive test confirms that the degemination is salient independently from speakers' origins. Our results show a clear mismatch between quantitative analysis and perceptual test: quantitative analysis indeed does not confirm rhotic degemination, although it seems to be recognized by the 70 Italian native speaker evaluators. This can lead to an interpretation of rhotic degemination as involving a qualitative change from trill to tap instead, that only relying on segments duration.

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Multicultural and linguistic contexts, mixing and switching languages: First approaches on Portuguese, English and Mandarin early speakers

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Among the most diverse areas that involve bilingualism is the socio- and psycholinguistic study in children and adults. Fernandez and Cairns (2010) define psycholinguistics as the area that studies the connections between language acquisition, comprehension, and production, and also how language is represented and processed in the human brain. Grosjean (2013) argued that more than half of the world's population might be bilingual. Even though the existing data are not yet concrete, it is clear that bilingualism is present in many age groups and diversified social positions in the vast majority of countries. Thus, based on the assumption that bilingualism is a phenomenon that occurs worldwide which is also the result of a globalized society surrounded by many cases of immigration, it is undeniably important to conduct studies related to education and culture from a bi-multilingual perspective. In this study, we aim to describe and analyze from a quantitative and qualitative perspective, a particular Portuguese-speaking community located in Dongguan (China), near Macau, also known as a appropriate area to learn Portuguese in Asia. The study is mainly focused on the code-mixing and code-switching phenomenon in different daily life contexts as well as in emotional situations. Children linked to the Brazilian community in Dongguan live in an environment that favors the acquisition of different languages due to interaction with individuals from diverse cultural and linguistic backgrounds, where Mandarin, English, and Portuguese are the languages that prevail. The results suggested that many parents supported bilingual education, as a representative of several socio-cultural advantages and as a factor that leads to a promising future for their children. It is also noticed that the observed children already had an emotional connection with the language they elected for different daily life contexts and that language, most times, may not be their parent's mother tongue.

Keywords: language acquisition, bilingualism, emotions, languages and emotions

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First words in the early lexical development: Evidence from Turkish

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Crosslinguistic studies focus on the acquisition of lexical categories and the developmental trajectory, which indicates a tendency from Reference to Predicate to Grammar. Although this developmental tendency is also confirmed in the acquisition of Turkish, both nouns and predicates are available in the early lexicon and reach a peak at the same vocabulary size level. Apart from nouns and verbs, other lexical categories such as people, routines, and closed-class vocabulary exist in children's lexicon starting from very early ages (Özcan, 2018). These findings explain the developmental profile of the growing lexicon, and the study of lexical diversity of the first words remains neglected. Tardif et al. (2008:930) pointed out that "the largest divergence in theories is about children's very first words" since children's very first words are yet to be studied when the vocabulary size is 10 words or less. Tardif et al. (ibid) also suggested that the very first words should be studied "across languages with respect to the specific words in order not to hide certain words behind the general term noun". In order to answer the cross-linguistic need in this aspect, this present study is designed to answer the following question in the acquisition of Turkish.

1. What is the lexical composition of the first 10 words?
2. Is there a similarity or difference across languages that have been studied before?

The participants are 76 Turkish-speaking monolingual children between 8-16 months with vocabulary between 1 and 10 words. The data were collected using the standardized Turkish version of the CDI-I developed by Aksu-Koç et al. (2009). CDI-I is used for the children between 8-16 months. The first 10 words in both receptive and productive vocabulary have been selected for qualitative and quantitative analysis.

Keywords: Turkish, lexical development, CDI-I, first words

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Language development and choice by emergent bilinguals in immersion preschool setting

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Despite overwhelming evidence that bilingualism is beneficial for academic, neurological, and socioemotional development, in the U.S. the vast majority of second language education takes place late in a student's academic trajectory. This paper presents unique data from a Spanish immersion preschool attended by two groups of students: heritage language learners (HLLs) and second language (L2) learners of Spanish. Our research questions are (1) What linguistic gains do children make in a Spanish immersion educational context over time? (2) What language choices do children make when the school language and dominant language differ? Seventy-four children ages 2 through 8 were recruited for the study. The data were collected through naturalistic observation during regular school activities, a Spanish story elicitation task, and the PreLAS in both Spanish and English for each child. Findings revealed that one year of enrollment in the school results in a statistically significant increase in the percentage of Spanish in the story elicitation task, $t(9)=2.452$, $p<.05$, and in the Spanish PreLAS. Notably, the English PreLAS revealed that students' English proficiency increased as well, even though instruction is entirely in Spanish. Results also revealed that while there are two distinct populations of bilinguals at the school, dominance ($p=.012$) and exposure (and $p=.019$) were more important predictive variables for Spanish production than home language. The findings suggest that despite attending a Spanish immersion preschool, students make significant gains in their English as well as Spanish, dispelling fears by parents and educators of children losing English in immersion preschools. Secondly, the results show that regardless of the linguistic environment of the home setting, the immersion context of the school allows for both groups of students to excel not only in Spanish, but also in English. Implications for early immersion education will be discussed.

Targeting speech intelligibility in Greek speaking preschoolers through phonologically dence speech stimuli

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Targeted intervention practices from a cross-language framework in children with speech sound disorders remain underexplore. This multiple baseline single-case study focused on the implementation of two theoretically motivated models in SSD including a complexity approach and the phonological density neighborhood variable. Vis-à-vis the complexity approach perspective it was hypothesized that complex intervention target stimuli would produce more phonological gains on more complex targets after systematic phonological intervention. Secondly, phonologically dense targets would promote speech intelligibility as these stimuli "tax" productive output demands on par with complexity approach. Four 4;6 year-old Greek-speaking male with SSD received phonological intervention for six weeks. Therapy goals included: (a) the reduction of phonological process use and (b) the improvement of output intelligibility. Significant phonological gains were revealed in the form of cluster reduction, increased in the proportion of consonant correct use, and improvements in the use of correct whole word matches. Phonological gains were observed for untreated word stimuli. Our findings support the synergistic relationship of Complexity approach and phonological density variable in the effectiveness of phonological intervention in the child examined by the current study.

Keywords: speech sound disorders, intervention, complexity approach, phonological density, cross-linguistic, multiple baseline single-case study

Non-uniform prosodic development in a multisystemic model of bilingual acquisition

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Although the body of research on bilingual development in the areas of phonetics and phonology has grown steadily in recent decades, its focus has been on the acquisition of speech segments, while prosody has been largely neglected (Gut, 2009). This is surprising because non-target-like prosody is notoriously persistent even in advanced learners (e.g. Grosser, 1993), and it is often considered to be one of the main stumbling blocks for second language learners (e.g. Barry, 2007). This study aims to shed light on this issue by investigating the acquisition of a number of related prosodic properties in L2 learners with typologically different L1s at different levels of proficiency (Mandarin and German learners of English at levels B1 and C1 of the CEFR): vowel reduction, syllable structure, and prosodic lengthening, which each have been identified as contributors to a language's overall rhythmic profile (e.g. Prieto et al., 2012). Our findings show that Mandarin and German learners follow comparable paths in the development of vowel reduction and prosodic lengthening, but very different paths in the development of syllable structure. We also found that the development of these properties is directly related to the development of the overall rhythmic patterns produced by these learner groups in their L2 English. The results support a multisystemic dynamic model in which the various systemic properties which contribute to speech rhythm interact with each other in prosodic development (cf. Post & Payne, 2018). In this process, different properties are developed in a non-uniform manner across typologically different languages, since different aspects of interlanguage phonology are variably subject to different linguistic constraints (i.e. L1 transfer effects or cross-linguistic commonalities). We conclude that L2 phonological acquisition theories, and SLA theories more generally, should take into account the non-uniform manner in which the various speech properties of the interlanguage reflect L1 influences as well as more universal constraints on acquisition.

Keywords: bilingual prosody, rhythm, L2 phonological acquisition

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Pronunciation of minimal pairs in French (L2) by Spanish-speaking children from Venezuela

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This study investigates the pronunciation of a group of elementary school children who attempt to learn French as a second language (L2). This paper examines the characteristics in the oral production of a set of minimal pairs in French (like *lu-loup*) which could be confusing for Hispanic beginners in French (L2), due to the fact that their pronunciation is similar. That is, one of the phonemes is found in their mother tongue, like /u/, and the one does not exist in their mother's tongue phonetic system, like in the case of /y/. Thus, some questions are to be answered: Will children make the expected mistakes (confusing /u/ and /y/)? Which strategies are they going to use when pronouncing a word with an inexistent phoneme in their mother tongue? Someone learning a language must develop abilities that permit a close match between output and input (Flege, 1988). In a former study, these children were part of an auditory discrimination test, in which they had to compare if these minimal pairs were the same or different. The present study compares the oral production of thirty six (36) children in elementary school (from 6 to 11 years old), eighteen (18) boys and eighteen (18) girls. For this new research, these kids listened two or three times the words in French (from a native speaker) and as they felt ready to pronounce them, they were recorded with the *Audacity* software. The results showed that in most cases, the word *soeur* was pronounced like the word *sert* /sɛʁ/, the phoneme /œ/ does not exist in the Spanish alphabet, so children used a similar phoneme. In the case of the minimal pairs *fasse* and *phase*, a word with the consonant /z/, children produced it like an /s/ (as expected), but according to the results, they also doubled the length of the preceding vowel. *Phase* was pronounced [fa:s]. The nasal vowels were pronounced in most cases as follows; *main* /mɛ̃/ as [ma] and *mont* /mõ/ as [mu]. For the minimal pairs *bout* and *vous*, 100% of the cases were well pronounced. The labio-dental consonant /v/ did not present any problem for children, even though this is not an existing phoneme in the Spanish alphabet. In a further study, the same minimal pairs will be analyzed (production and perception), but in that case after a phonetic training to teach these new sounds.

Keywords: pronunciation, children, French, phoneme, minimal pairs

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Interaction between Spanish-English speaking bilingual children, evidence from gliding

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Often children who grow up in Spanish-English bilingual families in Arizona, US, start as Spanish-dominant speakers but become English-dominant as they advance in school (Genesee et al., 2004). Two key factors in this language shift are campaigns promoting English monolingualism in schools (Fishman, 2013) and lack of understanding of bilingual speech acquisition, resulting sometimes in therapy over-diagnosis (Yavaş & Goldstein, 1998). Glides present a conflict in the phonologies of bilingual Spanish-English speaking children because of their dual behavior in each language (Levi, 2008). Spanish glides [j] and [w] are considered allophones of the high vowels [i] and [u] (Hualde, 1991, 1997 and many others), whereas English includes both sounds [j] and [w] in the consonant inventory (Ladefoged & Johnson, 2014). Unlike in English, the error pattern of gliding ("rabbit" pronounced as [ˈwæbɪt]) does not occur in monolingual Spanish, where the rothics [r ɾ] are replaced by [l] (*rojo* pronounced as [ˈlo.xo]) or [d ð] ([ˈdo.xo]), (Bosch, 2004). Taking into account the phonological distributions of glides in English and Spanish, we posed the question, "Do bilingual children show a different pattern of rhotic substitutions?" We investigate gliding in Spanish-English bilingual children born and raised in a southwest border region of the U.S. We analyzed the single words of 9 typically-developing bilingual children and compared them to a group of 9 typically-developing monolingual English-speaking children from the same preschool. A nonparametric Mann-Whitney U indicating gliding (*rabbit* [ˈwæbɪt]) occurred significantly more often in monolinguals than bilinguals, suggested between-language interaction (p=.031). Results are discussed within the Processing Rich Information from Multidimensional Interactive Representations model (PRIMIR; Curtin, et al., 2011). Through mixed methods analysis, this investigation shows evidence of distributed phonological systems, as well as between-language interactions.

Keywords: Spanish, English, bilingualism, gliding, phonology

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The development and expansion of noun phrases in spontaneous production data from Swedish children

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A deeper understanding of typical language development is needed, seeing that "[t]here is no clear cut-off that distinguishes between language impairment (regardless of its cause) from the lower end of normal variability of language ability" (Bishop et al., 2016:11). One knowledge gap is how noun phrases (NPs) expand over time (Fletcher & O'Toole, 2016). In Swedish, NP processing is notoriously difficult for children with atypical language development (Leonard et al., 2001) and still problematic at age 10 for children with typical language development (Hallin & Reuterskiöld, 2018). Within the NP domain, articles, genitives, adjective agreement, prepositional phrases and relative clauses constitute challenges for the child. This study focusses on NP production in typical language development of Swedish. It has two broad research questions that consider inter- and intra-individual variation and deal with how Swedish children develop NPs in terms of grammatical structure and semantics conveyed: How do NPs (morphology, syntax) develop in children's language production? How do different NP types compete over time on semantic grounds? The longitudinal and cross-sectional data consist of recordings of four children, ages 1;3–4;0 (Strömqvist et al., 1993, cf. CHILDES), diary data of one child, ages 1;9-4;2, and ca. 30 min. recordings of nine children, ages between 2;0-2;6, eight children, ages between 2;5-3;0, and six children, ages between 3;0-3;6. The qualitive analysis explores grammatical and semantic aspects of NP development in the production data. Errors are of particular interest, since they reveal details about the underlying conceptual organization that cannot be observed in conventional speech (Bowerman, 1982). Moreover, cases of competition (e.g. *a hat-lamp* vs. *a lamp that looks like a hat*) suggest that children gradually grasp that naming or descriptive functions pair to different NP structures, which also have to be mastered (cf. Dressler et al., 2017).

Keywords: Typical language development, noun phrase development, relative clauses, adjective agreement, prepositional phrases, normal variation, conceptual development

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Characteristics of Japanese young children's word accent assignment when reading abstract

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Recently, various studies on languages, especially those that have orthographic transparency, have focused on the relationship between reading development or disorder and stress assignment. However, there have been few studies on the effect of word accent assignment on reading performance in Japanese, a language with a pitch accent and orthographic transparency. The present study focused on the relationship between accent assignment when reading and phonological rule with the purpose of investigating whether Japanese children would assign a non-marked accent when they could read words fluently, or they would assign the other accent when they could not read words fluently (letter-by-letter reading). The participants were 25 children from the ages of 5;8 to 6;8. The stimuli were non-familiar five-syllable words with the third-syllable accented, and the accent type was non-marked. Children were asked to read each word as fast as possible. If they read the words letter-by-letter, they were required to read them as fast as possible again. The results showed that when children read the words letter-by-letter, the percentage of accent type was the highest in the non-accented words (51.8%), followed by the third-syllable accented words (27.3%). In addition, the first-syllable accented words (2.7%), the second-syllable accented words (1.8%), and the fourth-syllable accented words (16.4%) were also observed. The percentage of the third-syllable accented words (97.5%) was remarkably higher than that of the non-accented words (2.5%), when the children read the words fluently. Moreover, the percentage of the accented type was highest in the third-syllable accented words (71.4%), when the children could read fluently at the second trial, followed by that of the non-accented eords (18.6%). These results suggest that the development of reading fluency is necessary in assigning accent, and the accent type assigned in reading relates to the phonological rule in speech.

Keywords: accent, reading, young children, fluency, Japanese

Laterals in the pronunciation of L1 Bosnian under the influence of L2 German

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The present study investigates the influence of language contact on the realization of similar L1 and L2 phoneme categories, using the example of laterals in Bosnian and German. L1-Bosnian speakers are mainly exposed to two languages in Vienna: Bosnian, which features two lateral phonemes, a palatalized and a velarized lateral (Gick et al., 2006; Maric 2005) and Standard Austrian German, which has an alveolar lateral phoneme (Moosmüller et al., 2015). Moreover, speakers can be exposed to the velarized allophone of the Viennese dialect, which is, however, negatively evaluated and therefore avoided especially by female speakers (Schmid et al., 2015). Bosnian and German read speech of 7 female and 7 male highly experienced late bilingual speakers of L1-Bosnian and L2-German (>40 years) was recorded, as well as Bosnian read speech of a control group of 5 female and 5 male monolingual speakers living in Sarajevo. Laterals in the German sentences are balanced for 'word-position', 'word-stress' and 'vowel-context'. Laterals in the Bosnian reading task occur as minimal pairs embedded in carrier sentences, and are also balanced (as far as possible). F1-F3 are extracted over the whole lateral segment. For statistics, mixed effects models (as done in Schmid et al., 2015) are performed using R (Ihaka & Gentleman, 1996). Results indicate that bilingual speakers distinguish significantly between Bosnian and German laterals, and that in both languages, vowel-context (between back vowels, the laterals are more velarized), word-position (in word initial position, laterals are less velarized), and sex (women realize less velarized laterals) have a significant influence. A comparison between the laterals of the bilingual speakers in Vienna and the monolingual speakers in Sarajevo, however, shows that the bilingual speakers produce significantly less velarized laterals than the monolingual Bosnian speakers. This difference is more pronounced in word initial laterals and in female speech.

Keywords: bilingualism, language contact, language attrition, acoustic phonetics, laterals

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The perception of prosodic boundaries in L2

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Prosody and especially prosodic boundaries are crucial for language comprehension since they highlight underlying structures and disambiguate sentences. Prosodic boundaries also facilitate memory recall of, for example, lists of items since they highlight the structure by showing which items form a unit and thus belong together, and whether more items are to follow (e.g. Price et al., 1991; Kjelgaard & Speer, 1999). However, the exact realisation of prosodic boundaries is language dependent which can be challenging for L2 listeners. Production studies have shown that the phonological implementation of prosodic boundaries is accurate, but that the phonetic realisation is not native like even in highly proficient learners (e.g. Jun & Oh, 2000). However, to this date, not much is known about the perception of prosodic boundaries in second language learners. This study explores whether L2 listeners can perceive and use prosodic boundaries for memory recall to the same extent as L1 listeners. Nineteen Greek learners of English, and a monolingual English baseline, listened to and then repeated lists of three-digit chunks with and without prosodic cues in L1 and L2. Prosody was a major facilitator of memory recall only in L1 despite the high proficiency of learners. This indicates that L2 mastery of prosody perception is hard to attain, mirroring production studies. However, when prosodic boundary cues were absent, the performance in L2 was comparable to L1. This demonstrates that language-specific differences - here on the prosodic word level - can attenuate more general processing difficulties in L2. This study is the first to demonstrate differences of L1 and L2 in the perception and processing of prosodic boundaries resulting in poorer memory recall in L2.

Keywords: speech perception, prosody, L2 perception, adult L2, memory recall

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Perceiving morpho-syntactic elements of complex sentences when speakers reduce these

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Individuals who speak two languages may often be less proficient in speech perception in their second language (L2), particularly if the L2 has mainly been learned in adolescence or adulthood. Perceiving L2 speech may pose many challenges when the speech is produced by a first language (L1) speaker, due largely to the modifications and elisions that L1 speakers make in connected speech. These modifications and elisions make it more difficult for L2 listeners to segment sentences and recognize words in real time even when the words are known. In a recent study, we investigated the ability of both L1 adult listeners and of L2 adult listeners with a range of first languages to listen to English sentences and to re-produce these. Our focus was on how listeners processed syntactic elements of complex sentences, in particular the use of modal verb phrases to express possibility and probability of past actions. The phrases were spoken with an L1 speaker level of reductions. Our results showed that listeners have a tendency to re-produce the sentences with the grammar that they use rather than the grammar they listened to. In the case of L1 listeners, we found those who use non-standard or dialectical constructions produced these in their reconstructions of the sentences. In the case of the L2 listeners, we found deficiencies in the ability to re-produce the phrases, even in listeners whose proficiency levels were C1 on the Common European Framework with reference to languages. In follow up case studies with 10 of the L2 listeners, we provided intensive training on perceiving modal verb phrase reductions in connected speech. Results showed that perceptual awareness of reduced functional morphemes could be increased. Such increases may positively affect L2 listeners' morpho-syntactic parsing abilities.

Keywords: L2 speech perception, processing reduced function morphemes, matching grammar processing and production, perceptual awareness of reduced modal verb phrases

Prosody, focus, and non-verbal IQ

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Prosodic marking of information structure is an early acquired skill (Grassmann & Tomassello, 2010). Still, even 7-year-olds perform significantly worse that adults in certain focus interpretation tasks (Gualmini et al,. 2003; Śmiecińska, 2017), and some adults, despite the absence of any obvious linguistic, cognitive or auditory deficiencies, are not able to interpret prosodically marked focus at all; even if they perform at ceiling levels in other prosodic tasks, such as distinguishing between questions and statements or between sad and happy voices (Peppé et al., 2000; Śmiecińska 2017). Since prosodic deficiencies often co-occur with neurological, linguistic and cognitive problems, and a focus interpretation task is included in the popular PEPS-C test (Peppé & McCain, 2003) for prosodic profiling, it is vital to find out why some, otherwise neuro-typical, people fail at focus interpretation tasks. The aim of the study was to test whether inability of some individuals to interpret prosodically marked focus could correlate with their non-verbal IQ. A group of young Polish adults (N=60, age range 20-30) were asked to solve Raven Progressive Matrices and two focus tasks: matching prosodically varying input utterances with appropriate pictures (focus interpretation) and spotting words with pitch accent (focus identification only). The tests were designed and run by means of PsychoPy software. The results revealed correlation between the respondents' non-verbal IQ and the focus interpretation task results. However, although the inability to interpret prosodically marked focus was significantly more frequent among individuals with lower Raven scores (between 50th and 60th percentile) than among those with higher results (above 75th percentile), there were also individuals with high focus interpretation scores and low IQ scores, and those with low focus interpretation skills and high IQ. The outcomes of the study have implications for constructing prosody profiling batteries, which are discussed in the presentation.

Keywords: focus, information structure, non-verbal IQ and prosody

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An investigation of articulatory skill in monolingual and bilingual speakers

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Phonetic talent (expressed as the ability to learn a new accent) appears enhanced in bilingual compared to monolingual speakers (Antoniou et al., 2015). Other cognitive differences between these groups include both linguistic and nonlinguistic tasks, e.g. auditory encoding of sound (Krizman et al., 2012) and resistance to dementia (Bialystok et al., 2012). These are thought to lie beyond the explanatory power of a single process or brain component. Recent research has explored two of the mechanisms potentially underlying these differences, specifically (a) attention/inhibition mechanisms (Luk et al., 2011) and (b) auditory sensory memory (Spinu et al., 2018). Adding to these potential explanations, the possibility arises that bilinguals' advantage in phonetic learning may also be partially due to (c) superior motor control, as their articulators have had extensive practice with more than one set of sounds since early childhood. To address the latter possibility, experimental data were collected from 20 monolinguals and 20 bilinguals (mean age=22). The LEAP-Q questionnaire (Marian et al., 2007) was used to obtain detailed information about the bilinguals' background. Following Goldrick and Blumstein (2006), and McMillan and Corley (2010), the participants read artificially constructed tongue-twisters such as *kif kiv kiv kif* three times each in quick succession, matching a 150 beats-per-second rhythm played on a metronome. After a short practice session, each participant read 64 such items, many of which induced mispronunciations. Articulatory skill was first measured behaviorally in terms of speed and success rate. Preliminary results suggest that the bilingual group produced the required forms more accurately, but not faster. In the next stage, the subjects' consonants will be measured acoustically to determine prototypicality (e.g. in terms of voicing), uncovering finer-grained differences between the groups. Overall, these findings take us one step closer towards the more precise identification of the nature of bilingual advantages.

Keywords: phonetic learning, phonological learning, articulation, tongue twisters

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The initial learning of intonation patterns in a novel dialect of English by monolinguals and bilinguals

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With few exceptions (Boula De Mareüil & Vieru-Dimulescu, 2006; Jilka et al., 2007; Mennen, 2004), research on the processing of intonation by adult learners in a foreign language/dialect remains scarce. D'Imperio and German (2015) found that Singapore English-Mandarin bilinguals were able to modify their peak alignment and F0 scaling values to approximate those of American English, successfully imitating tonal alignment on an item-to-item basis despite a strong typological difference in prosodic structure between Singapore English and American English. In light of previous findings in which monolinguals and bilinguals did not differ in their imitation capabilities (Spinu et al., 2018), more data is needed to explore the difference between them in the learning of intonation. In the current study, 17 monolinguals and 25 bilinguals from Canada were compared on their short-term learning of a novel accent of English. The target accent is spoken in Sussex (SE England) and differs from the subjects' baseline in several ways. Among these, Sussex English displays rising pitch (uptalk) in declarative sentences. The experimental set-up included the recording of baseline utterances, training (i.e., a continuous listening phase followed by listening and immediate imitation of each sentence), and testing (i.e., repeating the sentences from baseline, this time trying to regenerate the new accent in the absence of prompts). The pitch contours in declarative sentences were inspected manually to record the presence of uptalk. Both groups of speakers imitated uptalk successfully; however, the bilinguals returned to baseline in the testing phase. While the monolinguals' uptalk rates also decreased in the testing phase, they remained significantly above their baseline. These results are unexpected, considering recent work in which bilinguals outperformed monolinguals in the learning of segmental properties (Antoniou et al., 2012), and raise questions regarding the factors underlying the differential salience of segmental and prosodic information between groups.

Keywords: acquisition of intonation, monolingual advantage, phonetic and phonological learning, uptalk

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The interrelation between social gender and grammatical gender across languages

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Aikhenvald (2012:33) posits that there are three different types of gender across languages: (i) Natural gender (*N-gender*) which corresponds with the biological distinction of sex characteristics, (ii) Social gender (*S-gender*) which reflects "the social implications of being a man or a woman," and (iii) Linguistic gender *(L-gender*). According to Aikhenvald (2012), L-gender receives its meaning in direct relation to S-gender. In this regard, the following research question arises: How is the interrelation between S-gender and L-gender formally established? Although both sociology and theoretical linguistics have yielded fundamental insights regarding understanding of the gender category, the interrelation between the two disciplines has yet to be established. Sociology of gender, a prominent subfield of sociology, has lacked the linguistic mechanisms in understanding the gender category, while theoretical linguistics has lacked studies of the socially situated environment that can influence the use of grammatical gender. This work seeks to bridge this gap. The main question investigated in this work is as follows: How does the social gender as established in a given society affect the use of grammatical gender? This work presents a novel methodological approach to understanding the interrelation between social gender and grammatical gender across languages. It interrelates two different disciplines: *sociology* (the framework 'sociology of gender') and *theoretical linguistics* (the framework 'distributed morphology'). With respect to sociology, this work conducts a *mezzo sociological* analysis of gender, which means that it takes into account broad cultural norms which shape all kinds of social interaction. With respect to theoretical linguistics, the framework *Distributed Morphology* (Halle & Marantz, 1993) distinguishes between word formation from √roots and from syntactic categories. Thus, it provides us with formal tools necessary to understand the morphosyntactic processes occurring within a word. The results of this interdisciplinary work are of interest to theoretical linguists, language typologists, linguistic anthropologists, language-area specialists, language educators, sociolinguists, and sociologists, as well as the general public interested in gender. Due to the fact that a number of the languages and dialects analyzed here are on the verge of extinction, the findings are also relevant to the field of endangered language maintenance and revitalization.

Keywords: gender category, typology of gender, sociology of gender, morphology

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Early grammatical development in Cyprus: A CDI study

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In the particular linguistic situation of Cyprus, the standard language (Standard Modern Greek) co-exists alongside the local dialect (Cypriot Greek); Greek-speaking infants raised in this linguistic community grow up as bilectals, acquiring two forms of the same language simultaneously. Early language development in such bilectal communities remains understudied. The Cypriot Greek adaptation of the MacArthur-Bates Communicative Development Inventory (CDI) has provided important data through parental feedback on their child's language development. Early lexical development has been analyzed (Taxitari, Floros, Kambanaros & Grohmann, 2018), but the data on grammatical development have not been yet analyzed. This study aims to fill this gap through the use of data also collected with the Cypriot Greek CDI. CDI – II (Words and Sentences) was used for the collection of data for five age groups (18, 21, 24, 27, and 30 months). The CDI consists of two parts: Part I investigates word production and word usage. Part II investigates grammatical development; it contains six sub-sections with questions on the use of grammar, the formation of plural, verbs in different tenses, negation, nouns, adjectives, and combination of words. Along with questions on children's language abilities, different factors which might affect development are also being investigated. Data for the child's grammatical development were calculated by assigning one point to each grammatical aspect the child produces. Total grammatical scores are calculated by summing up the points for all grammatical aspects. Each grammatical aspect is analyzed separately (both quantitively and qualitatively) with the percentage of children producing it at each age calculated. A special focus is given to the mistakes children make, as reported by parents. Apart from providing data on the typical development of grammar, which can be used by both researchers and clinicians, this study is expected to shed more light on the theoretical aspects of bilectal development, extending the study beyond the lexicon, to grammar and its interactions with lexical development.

Keywords: grammatical development, bilectal language acquisition

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Does early language support in bilinguals bring sustainable effects on literacy acquisition in school?

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Language support at preschool age and its sustainable effects play an increasingly important role in German educational institutions. This topic is highly debated, especially with regard to language development of multilingual children who grow up in heterogeneous language environments with different language combinations (Beller et al. 2009; Egert & Hopf 2016; Ehlich, Valtin & Lütke 2012; Gasteiger-Klicpera, Knapp & Kucharz 2010; Lisker 2011; Schneider et al. 2013). The present investigation is part of our longitudinal studies on the immediate and sustainable effects of language support methods in bilingual children at preschool and primary school age. The aim is to compare reading and writing skills at the end of the first grade in three groups of children: bilinguals (L1 Russian/Turkish, L2 German) who received language support in kindergarten for three consecutive years starting at age 2-3 (n=35), German monolinguals (n=59) and bilinguals with various L1s (n=57) tested in the same schools. Reading skills were assessed with the reading test (*ELFE 1-6*, Lenhard, Schneider & Schneider, 2006) consisting of subtests on word, sentence, and text comprehension. Writing skills were examined with the corresponding writing test (*HSP - Hamburger Schreibprobe*, May, 2002), using total scores of correct morphemes and graphemes for the analysis. The analysis revealed that the group of bilingual children who received language support from early on in the framework of our study tended to show better results in all subtests of the reading test than the investigated group of bilinguals in the same schools, although the effect was not strong. The monolingual group performed slightly better than the two bilingual groups. The results for the HSP test were similar in all investigated groups. Overall, the results did not show statistically significant differences in either comparison. Further factors will be analysed and presented at the conference before drawing final conclusions.

Keywords: bilingual language acquisition, bilingual children, literacy, language support methods, German

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Phonological skills across child populations: How bilingualism and dyslexia interact

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This paper explores the interaction between bilingualism and dyslexia in the phonological domain. Phonological deficits are reported as a hallmark of dyslexia (Ramus et al., 2003; 2013), whereas studies on bilinguals have led to controversial results (Bialystok et al., 2003). Conversely, the interaction between bilingualism and dyslexia has not been much studied yet. To shed new light on this domain, we assessed rhyme detection, nonword repetition and spoonerisms in two studies. In Study 1, we investigated the effects of bilingualism in typically developing children (TD), by comparing the performance of 15 TD monolingual Italian children aged between 8 and 12, to that of two groups of age-matched children with Italian as L2, 14 monolinguals in Arabic and 10 monolinguals in Bengali. Results revealed a similar performance across groups in all tasks, suggesting that phonological skills are not affected by bilingualism, and that the L1 does not influence performance. In Study 2, we analyzed the effects of bilingualism in dyslexia, by comparing the performance of 24 Italian monolinguals with dyslexia, 24 bilinguals with dyslexia, 33 TD Italian monolinguals and 31 TD bilinguals (aged 8-12). In this case, bilinguals had Italian as L2 but different L1s. Results confirmed that bilinguals performed similarly to monolinguals, whereas children with dyslexia, irrespective of bilingualism, displayed severe difficulties in all the tasks. Importantly, no differences were found between monolingual and bilingual dyslexics, indicating that bilingualism does not negatively affect the phonological competence of impaired children, whose difficulties would have been the same, had they been monolinguals. Although dyslexic children's exposure to more than one language is approached cautiously - when not discouraged – in education practice, our results show that no evidence of a bilingual disadvantage in children with dyslexia. Conversely, independent evidence of positive effects of bilingualism in dyslexia, collected in other cognitive and linguistic domains (Vender et al., 2018), could lead educators and health practitioners to sustain and promote active bilingualism in children with dyslexia.

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Perception and production of Mandarin consonants by English learners of Chinese

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While research on L2 learners' problems with the target language speech sounds is well documented (Flege, 1995, 2007; Piske et el, 2001), very few studies have dealt with the acquisition of Mandarin consonants (Lin, 2005). This study investigates the perception and production problems with Mandarin consonants by English learners of Chinese as a foreign language (CFL). An additional goal is to explore the relationship between L2 consonant perception and production at initial stages of learning. Thirty beginning level English CFL learners identified eight Mandarin consonants (j /tɕ/, q /tɕʰ/, x /ɕ/, zh /tʂ/, ch /tʂʰ/, sh /ʂ/, z /ts/, c /tsʰ/) in C+/a/ syllables in forced-choice tasks. They also read a list of sentences containing the target consonants which were identified by native Mandarin listeners in forced choice and rating tasks. Results showed the learners had difficulties with all the eight Mandarin consonants under investigation. The participants' mean perception and production accuracy scores were both around 50%, but they performed significantly better on the retroflex sounds *zh* /tʂ/, *ch* /tʂʰ/, and *sh* /ʂ/ in perception than in production but vice versa on palatal sounds *j* /tɕ/, *q* /tɕʰ/, and *x* /ɕ/. The results on dental sounds *z* /ts/, and *c* /tsʰ/ were mixed across the two domains. Mandarin retroflex and palatal fricatives and affricates, though both lack counterparts in English L1, pose different problems to the English CFL learners in perception and production. Such discrepancies suggest that the relationship between perception and production of L2 consonants is not straightforward. Analyses of individual learners' data are under way to further explore the nature of the observed differences in the two domains. The findings are discussed in terms of current L2 speech learning theories.

Keywords: Mandarin consonants, English CFL learners, L2 speech perception/production

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Palatal patterns in acquisition of English and French

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It has been claimed that phonemes and syllables could not be acquired before or without words, and that segmental and syllabic complexity gets progressively acquired by way of the «whole word» unit (Menn, 1978; Menn & Matthei, 1992; for a synthesis, Vihman, 1996). Two case studies in English are reported in the litterature where the children systematically use palatal patterns and more precisely, yod, in their first units. Priestley (1977) and Vihman et al. (1994) provided English data of respectively, Christopher exhibiting a huge tendency towards [CVjCV] patterns and Alice exhibiting three types of palatal patterns [jV], [VI] with a diphtong (*hi)* (from 10 months) and then [C_oVCI] (*baby*, *mommy)* that she finally combines from 14 months (*daddy* [dœIji]). On the other hand, Wauquier (2009) provided French data from Clara supporting a 'yod stage', preceding the arising of fricatives, during which the yod is a default consonant melody, spreading on consonant slots mainly to replace the fricatives. Though the data are provided for English and French which differ typologically, the three cases share three main salient characteristics: first the palatalization and/or the yod do not apparently proceed from the segmental context, second the palatalization seems to behave as an autosegmental melody, third the yod and/or palatal patterns fade after this templatic stage during which they are hugely used. In this paper, I will compare these three sets of data and try to evaluate the respective weight of articulatory factors, input and frequency factors and markedness factors which motivate the systematic use of palatalization made by those three children and to establish if we are in a position to produce a relevant generalization that will cover data from these two different languages. Indeed some phenomena involving the yod and the palatalization, observed in adult phonologies provide arguments supporting the claim that the yod and/or the palatalization pattern could be in every language, a very good way to get the complexity of phonological system.

Keywords: comparative acquisition, phonology, palatalization

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Articulatory features for pronunciation error detection and feedback

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Recent advances in Automatic Speech Recognition (ASR) technology obtained through deep neural nets (DNNs) approaches and in ASR-based Computer Assisted Pronunciation Training (CAPT) make it possible to realize advanced environments in which L2 learners can practice as long as they want, at their own pace, in an anxiety-free setting, while receiving corrective feedback from the computer. Existing systems could however be made more effective by increasing their accuracy in pinpointing errors and in providing useful feedback to L2 learners for improving their pronunciation. L2 learners may produce phoneme substitution, insertion or deletion errors, but they also make distortion errors which deviate in a more subtle way from canonical sounds, producing speech sounds that are in between two L2 sounds. To detect such fine-grained differences articulatory features can be used as these can better describe the pronunciation error types and help to improve the performance of error detection and classification. Research by Wei et al. (2017) showed that such an innovative approach based on articulatory features could be applied to identifying pronunciation errors made by Japanese learners of Chinese. In a recent study we tested the suitability of this approach in identifying pronunciation errors in Dutch as a second language made by learners with different L1s. Since articulatory features are directly related to pronunciation during the generation of speech, they can be used to detect and classify pronunciation errors, and, importantly, to provide direct, more informative feedback to L2 learners. We present the results of our studies and discuss possible improvements in terms of ASR technology and feedback, and consider future opportunities for speech therapy and research on pathological speech.

Keywords: articulatory features, automatic speech recognition (ASR), computer assisted pronunciation Training (CAPT), pronunciation error detection, feedback

Naming proficiency among English-Hebrew bilingual schoolchildren

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The present study explored naming proficiency among typically developing bilingual schoolchildren when both languages have relative high prestige. Data was collected from 16 typically developing 6 to 9 year old English-Hebrew bilingual children belonging to families of mid–high socio-economic status. According to parent's questionnaire, all children were exposed to English from birth and to Hebrew not after being 3 years old. Children were presented with the same naming task for their two languages, addressing 100 pictures of objects. Although current exposure and use of languages were balanced between the two languages among most of the children, the average score obtained in Hebrew (M=85.6%, SD=9.2) was significantly higher than that obtained in English (M=70.6%, SD=14). In addition, percent of pictures that could be named only in Hebrew and not in English (M=23.7, SD=12) was significantly higher than percent of pictures that could be named only in English and not in Hebrew (M=8.8, SD=7.3). Thus, results show that naming proficiency in the societal language, Hebrew, is higher, even in the presence of English, a home language with high prestige. However, an important finding is that, in average, children could name 61.8% (SD=11.8) of the pictures in both Hebrew and English, and only 5.7% (SD=4.3) of the pictures could not be named in either of the languages. Thus, almost all children could name correctly more than 90 out of the 100 pictures, in one language or the other. This means that overall naming proficiency could be considered close to that expected among monolingual children. Results of the current study are important for broadening knowledge regarding typical lexical development among bilingual children, and also as a reference line for future studies focusing on naming proficiency among English-Hebrew bilingual children that are suspected to have developmental language disorder (DLD).

Keywords: bilingual, schoolchildren, Hebrew-English, naming

Socioeconomic status and the development of monolingual and bilingual preschoolers' German plural marking

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Young monolingual children are frequently found to outperform their bilingual peers on measures of majority language skills (Hammer et al., 2014). This is also the case for German plural marking (Bihler et al., 2018; Caspar & Leyendecker, 2011). However, bilingual children are often from immigrant families that are likely to have a lower socioeconomic status (SES) than non-immigrant monolingual families. Without controlling for SES, it is difficult to discern whether bilingualism or SES is the source of such differences (Hammer et al., 2014). A small German study controlling for SES revealed mixed evidence regarding differences between monolingual and bilingual children's plural marking (Ronniger et al., 2018). We longitudinally traced how children's language background and SES are related to the development of expressive German plural marking with *n*=368 German monolingual and *n*=148 bilingual (German and various family languages) preschoolers using a standardized assessment (Grimm, 2015). Our research questions were: 1) Do bilingual children score lower on German plural marking when controlling for SES? 2) If there are effects related to both bilingualism and SES, which effect is larger? 3) Do bilingual children show different growth over time in German plural marking compared to monolinguals (e.g., resembling a "catch-up" effect)? 4) Are any effects of SES similar for bilingual and monolingual children? First results from hierarchical modeling revealed that bilinguals scored lower on German plural marking when controlling for SES (operationalized through either parental education or a low income) and that the effect was substantially larger than that of SES. There was evidence of bilingual children "catching up" over time. Finally, the effect of SES was the same for monolingual and bilingual children. We discuss which features of the bilingual experience may cause such differences as well as their importance for education/speech-language professionals.

Keywords: bilingual, morphology, socioeconomic status, longitudinal

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Effects of acoustic characteristics of vowel sounds on dysarthric speech intelligibility

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Research on speech intelligibility takes place in many domains, e.g. clinical, language learning, psycholinguistics, and speech synthesis. Although intelligibility rating has received considerable attentions, it's still unclear that which features of speech contribute most significantly to intelligibility and there are no general measurement procedures. In addition, measuring speech intelligibility is time consuming since it is usually measured by collecting subjective judgments of human raters. Due to these limitations, there is a growing need to develop more objective procedures for measuring speech intelligibility base on efficient computational models. This is important for research and practice, such as diagnosis, pre- and post-tests, and monitoring purposes. In a previous study (Ganzeboom et al., 2016), we investigated a set of intelligibility ratings of disordered speech at three different levels of granularity: utterance, word, and subword level. Orthographic transcriptions were used to obtain word and subword (grapheme and phoneme) level ratings by using automatic alignment and conversion methods. The obtained phoneme scoring thus turned out to be feasible, reliable, and provided a more sensitive and informative measure of intelligibility. However, all the methods presented in this study were dependent on subjective ratings provided by human judges. Recently, we investigated what deviations of pathological speech mostly influenced speech intelligibility by automatically calculating several acoustic characteristics of vowel sounds on a Dutch dataset and on the English dataset TORGO. Preliminary results seem to indicate that normalized Vowel Space Area, Vowel Articulatory Index, and (variation in) fundamental frequency (F0) appear to be related to intelligibility. This is in line with previous research (Skodda, et al., 2012; Tjaden, et al., 2013) and with studies on the intelligibility of L2 speech (Kang et al., 2018). We will also discuss possible avenues for future research and implications for clinical practice.

Keywords: dysarthric speech intelligibility, normalized vowel space area, acoustic characteristics of vowel sounds

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Segmental production by Polish learners of English: The case of the FOOT and GOOSE vowels

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Learning a second language is always a complicated process (e.g. Arabski, 1997). It requires acquisition of numerous skills and elements, L2 phonetic system among them. Since phonetic systems of various languages differ greatly, achieving correct pronunciation in one's second language always poses a serious challenge for language learners (Rojczyk, 2010). The English high back vowels (/ʊ/ and /u:/) have been regarded as significantly difficult vowels to acquire for non-native speakers of this language (e.g. Bohn & Flege, 1997). Their production and (mis)pronunciation frequently reflect the intensity of a foreign accent, especially in languages deprived of such contrasts, e.g. Polish (e.g. Sobkowiak, 2004). Quite a few pieces of research have been carried out on the acquisition of English vowels by Polish learners of English giving mixed results, however none of them were longitudinal studies (e.g. Gonet et al., 2010; Nowacka, 2010; Rojczyk, 2010; Lipińska, 2013). The aim of this paper is to investigate whether L2 learners are able to separate the aforementioned new vowel categories (i.e. /ʊ/ and /u:/) from their native, neighbouring sound (Polish /u/) and from each other, as well as to what extent an academic course in practical English phonetics and phonology can facilitate this complex process. 57 subjects recruited among first-year students of English Philology at the Institute of English, University of Silesia, recorded Polish and English vowels in a /bVt/ context twice – before the beginning of the course and after its first part (focused on vowels). The recording sessions took place in a sound-proof booth at the Acoustic Laboratory of the Institute of English. The study participants' utterances were subjected to an acoustic analysis with the use of Praat speech analysis software (Boersma, 2001). The first two formants were measured at a vowel midpoint, normalized using a Lobanov transfer (Lobanov, 1971) and plotted on a vowel plane. The results show that the subjects' production of the sounds in question improved considerably at the post-test and thus suggest that appropriate pronunciation training may enable language learners acquire new sounds at a significant level.

Keywords: high back vowels, speech production, vowels, L2 acquisition, pronunciation

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Is there a Midway Always? SPR evidence for the absence of partial selective access in Hindi-English bilinguals

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Keywords: bilingualism, bilingual language control, partial selective access, non selective access, hindi-english bilinguals, self paced reading

The purpose of this study was to investigate the partial selective access in Hindi-English bilinguals. Most of the research in bilingual activation favors the non selective access in both primed and non-primed conditions. A study on Spanish-English bilinguals in 2015 revealed the presence of partial selective access. The present research investigated the partial selective access using code switched constructions as stimuli in the experiments. It is evident that during code switching both the languages are activated, but what matters is the choice of the bilingual even after getting probed towards one or the other context. The presence of partial selective access needs to be examined in different contexts; hence this study also incorporates the social factors, as the hypothesis states that the access cannot be partial in a situation where bilingualism in L2 is made common through various pressures. In this study two experiments were conducted. The first experiment was sentence completion in which the participants were primed using a paragraph in a monolingual context. For adopting a naturalistic approach the participants were instructed using code switched constructions. The participants had to answer a question related to the context of the paragraph, using five given options. The choice of the options [Correct code-switched (ccs), correct non code-switched (cncs), wrong code-switched (wcs), wrong non code-switched (wncs) and alternate non code-switched (altncs)] determined the lexical access, and the reaction time revealed the degree of activation. The data was analyzed using SPSS. The results of ANOVA and independent sample t test revealed the insignificant differences between ccs and cncs. The second experiment was in self paced reading paradigm. It aimed at checking the processing between code switched and non code switched constructions, followed by a comprehension question as a filter. Mean reaction time differences point out that the non code switched constructions (cncs & wncs) with dual context has a faster processing rate at the critical region as compared to the code switched constructions (ccs &wcs), supporting non selective access. The future plan is to replicate this study in eye tracking paradigm where contextual pictures will probe the participants. The findings of this study are relevant as it focuses and discusses the question that why is partial selective access not ubiquitous.

Codeswitching in Spain and Gibraltar: Gender in the spotlight

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The analysis of code-switching patterns has revolved around how code-switching between a gendered and an ungendered language (e.g. Spanish vs. English) proceeds and on how gender features are represented in the mind of bilinguals as reflected in their judgment and production data (e.g. Arnaus et al. 2012; Burkholder, 2018; Fairchild & van Hell, 2017; Jorschick et al., 2010; Liceras et al., 2008). We investigate code-switching directionality (1 vs. 2), and gender agreement preferences in Spanish determiner switches, where gender double feature valuation could be enforced (Analogical Criterion, Otheguy & Lapidus, 2005, (2) or not (3), and where gender subspecification could also occur (i.e. default masculine) (4). We also address the issue of dominance both by comparing L1 and L2 bilinguals as well as bilinguals from different communities.

1.	the $casa_{house}$			
2.	$la_{fem.}$ house $_{SP\ fem}$	/	$el_{masc.}$ $book_{SP\ masc.}$	[+AC]
3.	$el_{masc.}$ house $_{fem.\ in\ SP}$	/	$la_{fem.}$ $book_{SP\ masc.}$	[-AC]
4.	$el_{masc.\ default}$ house/book			

We tested four groups of bilingual children (Heritage and L2 English from Spain; and Heritage and L2 Spanish from Gibraltar) who performed an acceptability judgment task. Results show that, with respect to **directionality**, all speakers prefer the English determiner switches (1). With respect to gender preferences, structures showing a **double feature valuation mechanism** ([+AC]) are favored only by Heritage speakers and, marginally so, by children with English as L2. When comparing the two strategies ([+AC] and **default masculine**), only Heritage Spanish prefer masculine determiners. In the spirit of Liceras et al. (2016), we argue that dominance is to be interpreted in terms of feature strength so that the dominant language is the language whose DP has more grammaticized features (i.e. gender in Spanish), regardless of whether or not, in the case of 2L1 bilinguals, Spanish is their dominant language as per social and input factors.

Keywords: code-switching, English-Spanish, heritage speakers, directionality, gender-feature valuation, analogical criterion, default masculine

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Does orthographic depth modulate L1 phonological transfer? Evidence from the L2 speech of Farsi- and Korean-English-speaking bilinguals living in Canada

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Recent work has shown that exposure to orthographic effects can promote first-language (L1) phonological transfer (Bassetti et al., 2015, Young-Scholten & Langer, 2015; Rafat & Stevenson, 2018; Rafat & Perry, 2019). However, it is relatively unknown whether orthographic effects persist in highly proficient bilinguals (Bassetti, 2017) and what their modulating factors are (Rafat, 2016). Here, we examined how L1 orthographic depth (regularity in grapheme-phoneme correspondences) modulated Korean-English and Farsi-English bilinguals' (n = 25 each) production of digraphs (double letters) in English words (e.g. <me**ll**ow> /ˈme**l**oʊ/ vs <me**l**on> /ˈme**l**ən/). Native English speakers (n = 25) served as a control group. Because digraphs are produced as geminate (long) sounds in both Korean (a shallow orthography) and Farsi (a deep orthography), we expected L1-based transfer. Participants completed four tasks: an eye-movement reading task, word-naming task, cloze test, and language background questionnaire. The stimuli were controlled for word frequency, word length, number of syllables, and stress. Preliminary results of an acoustic analysis revealed that Korean-English bilinguals were more likely than Farsi-English bilinguals to produce digraphs as longer sounds in both the reading and word-naming tasks. These language-specific effects are attributed to differences in L1 orthographic depth, corroborating previous neuro-linguistic evidence that shallow and deep orthographies differentially rely on phonological and lexical pathways, depending on language-specific demands in learners (Buetler et al., 2014, 2015). Taken together, our results suggest that orthographic input influences bilinguals' underlying phonological representations, as a function of L1 orthographic depth. This work has implications for both second-language (L2) speech learning models and classroom instruction.

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