

**52nd Poznań Linguistic Meeting**

**PLM2023**

**“Why are some theories  
more successful than others?”**

**13–15 September 2023**

**Poznań, Poland**

# **Book of Abstracts**



**PLM**

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Issued on the occasion of the 52nd Poznań Linguistic Meeting

**“Why are some theories more successful than others?”**

Poznań, Poland, 13–15 September 2023

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# Oculomotor Control in Reading: Findings from Turkish

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Eye movements have been investigated over the past decade to study reading and its associated perceptual, cognitive, and linguistic processes. However, challenges persist due to the simplicity of the metrics, the intricate nature of the processes under investigation, and technical challenges in the measurement techniques. The fundamental metrics revolve around patterns of fixations, focusing on aspects such as their duration and position on the text. These basic metrics are supplemented by derived ones that predominantly capture dynamic eye movement patterns over text, like regressions. To delve into the dynamics tied to these processes, one strategy involves analyzing word attributes that affect information absorption via foveal, parafoveal, and predictive mechanisms. Recent research on eye-tracking in reading largely deals with foveal information intake in major languages. Yet, the broad applicability of these findings is contingent upon patterns seen across a variety of languages. As such, it's vital to broaden the scope of the data by adding eye movement studies from languages that are less frequently studied.

This presentation introduces TUREad, an eye movement dataset that captures both silent and spoken sentence reading in Turkish—a language with agglutinative properties and a shallow orthography that's been relatively unexplored in reading studies. The dataset encompasses 192 sentences, read by 215 participants both silently and aloud. The participants' eye movements were captured using a single-camera (right eye) integrated into the SR Research EyeLink 1000 eye tracking system with a tower mount setup, recording at a frequency of 1000 Hz. Audio recordings were captured for text and filler stimuli using a compatible sound card.

TUREad provides empirical data that bridges morphology and oculomotor control. We employ a target-word approach, where we adjust target words based on their length and the integration of two prevalent suffixes in Turkish. This dataset incorporates established eye movement metrics, along with prelexical attributes like vowel harmony and bigram-trigram frequencies. Additionally, it considers word attributes such as length, predictability, frequency, eye-voice span measures, and Cloze test results for root word and suffix predictabilities. The data also encompasses scores from two distinct working memory tests. Besides the commonly examined eye movement metrics (such as first fixation duration, gaze duration, last saccade amplitude, next saccade amplitude, first fixation location, and launch site) for both oral and silent reading, TUREad incorporates four specific measures exclusive to oral reading. These include fixation speech interval, eye-voice span based on character count, eye-voice span based on word count, and articulation duration.

Central to our findings is the replication of canonical effects highlighting the influence of frequency and predictability of fixated words on eye movement patterns in sentence reading. Notably, we found the FSI (Fixation Speech Interval) in Turkish exceeds that of English and German, aligning more closely with Finnish, another language with a direct orthographic structure. Such elevated FSI values in languages like Turkish and Finnish could signify the impact of a shallow orthography on preliminary phonological processing. Furthermore, we observed shorter EVS (Eye Voice Span) metrics in Turkish sentence compared to earlier research, implying a potential influence of the shallow orthography on the working memory buffer.

The dataset is publicly available at *TUREad: An Eye Movement Dataset of Turkish Reading* in Open Science Framework OSF Repository (<https://osf.io/w53cz/>). More information can be obtained at Acarturk, C., Ozkan, A., et al. (2023). TUREad: An eye movement dataset of Turkish reading. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-023-02120-6>.

# Marked Coda Clusters are learnt more easily when they are morphonotactic

Irene Böhm & Nikolaus Ritt

University of Vienna

We report an iterated learning experiment designed to test the hypothesis that coda consonant clusters – particularly highly marked ones – are learnt more easily when they occur exclusively across morpheme boundaries and thereby function as unambiguous signals of morphological complexity (cf. Dressler & Dziubalska-Kołaczyk 2006).

The experiment adopts a design developed in the Language Evolution and Computation Research Group at Edinburgh University (cf. Kirby, Cornish & Smith 2008). Participants are asked to learn word forms of an artificial mini language that end in a coda consonant cluster and to reproduce these pseudo-word forms from memory. The outputs of one participant serves then as learning inputs to the next one, and the procedure is repeated 9 times, simulating a sequence of 10 iterated learning events. The iteration of learning events typically amplifies the effects of even weak preferences.

To test the hypothesis that coda clusters will be learnt more easily if they occur exclusively across morpheme boundaries, the participants in our experiment had to learn both singular and plural forms of the artificial words we had designed. In the first of three experimental conditions, our artificial language included singular word forms that ended in morpheme internal (highly marked) /tk/-clusters, and plurals that were formed with vocalic suffixes. For example, a word for ‘mouse’ would be /potk/, and its plural /potk+a/. In that condition, all final /tk/ clusters were phonotactic. In a second condition, our language included singular forms that ended in voiceless obstruents, and plurals that were formed with a consonantal /-k/ suffix: for example, the word for ‘mouse’ would be /pot/, and its plural /pot+k/. In that condition, all final /tk/-clusters were morphonotactic and unambiguous signals of morphological complexity. In a third condition, we also included plurals that were formed by /-k/ suffixation, again yielding plurals such as /pot+k/ ‘mice’ from singular /pot/ ‘mouse’. However, condition 3 also included singular forms that ended in stem-internal /tk/ and that took zero plurals, e.g., /ma:tk/ ‘frog’ vs. /ma:tk-Ø/ ‘frogs’. Thus, in condition 3, there were both phonotactic and morphonotactic /tk/ codas, which reduced their ability to signal morphological complexity.

The results of our experiment provided unambiguous support for the hypothesis we intended to test. In all conditions except condition 2, final /tk/ clusters were lost within few participant generations, and only when they occurred exclusively across stem-suffix boundaries, were they retained throughout the learning chain.

After reporting our results, we discuss a few limitations of the method, such as the fact that all participants were adults, so that any conclusions about first language acquisition must remain tentative.

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## **Cross Linguistic Influence in multilinguals: Do dominance and recency play a role?**

Chloe M Castle (UiT The Arctic University of Norway)\*; Anna Skałba (Adam Mickiewicz University in Poznań); Marit Westergaard (UiT The Arctic University of Norway)

The literature is divided in terms of whether dominance plays a role for crosslinguistic influence (CLI) in L3A. Several authors have found that dominance is a factor (e.g. Angelovska et al 2023; Fallah & Jabbari 2018), whilst other authors have found that it is not (e.g. Lloyd-Smith et al 2021). Authors have focused on differing areas of language, stages of acquisition, and ages of participant groups. Slabakova's (2017) Scalpel model specifically suggests that factors including language dominance serve to influence the choice of language in terms of CLI, but other models would also allow such factors to play a role, e.g. the Linguistic Proximity Model, which argues that CLI is due to (different strengths of) co-activation of the previously acquired languages (e.g. Westergaard 2021).

This paper focuses on morphosyntactic CLI at the beginning stage of acquisition, the point at which it is posited to have the greatest effect, before input-induced and overt learning has occurred. This design also allows for us to test the effect of recency, a little-investigated factor relevant for all experiments on CLI. Recency in this study is operationalised as the language of instruction and the language of the experiment.

Participants are L1 Polish L2 English speakers living in either Poland or the UK, who do not know Norwegian prior to the experiment. They are exposed to thirty-six Norwegian words (with pictures) as many times as desired for memorisation (Figure 1), followed by a picture-sentence matching task (Figure 2). They only proceed to the main experiment if they obtain at least 80% accuracy on the lexical items. The main experiment is a forced-choice judgement task, wherein participants must choose between two sentences in Norwegian using the words they learned – one with Polish-like and the other English-like morphosyntax. The English-like constructions are ditransitives and articles, and the Polish-like constructions are number agreement on adjectives and pronominal semantic gender for inanimate objects (used in some Northern dialects of Norwegian) (Figure 3, 4, 5, 6).

Dominance will be operationalised primarily through an assessment of domains of use, adapted from the Language and Social Background Questionnaire (Anderson 2017) and the Bilingual Language Profile (Birdsong, Gertken & Amengual 2012). The results of these questionnaires are assessed as a distribution to avoid an arbitrarily placed median split. Participants are also tested on their performance on the relevant structures in English and Polish.

We predict that participants who are more dominant in Polish will choose the Polish-like constructions, and those who are more dominant in English will choose the English-like constructions. These effects will be mitigated by the recency effect, wherein, for example, Polish-dominant Polish-recency participants are predicted to choose the most Polish-like constructions, followed by Polish-dominant English-recency participants.

The study will shed light on the roles of dominance and recency in CLI for morphosyntax at the initial stages of acquisition.

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Figures:

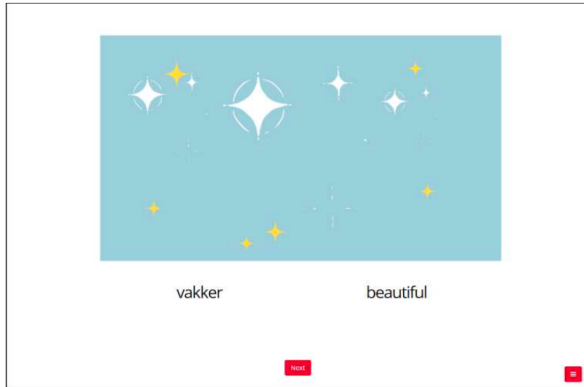


Figure 1: Vocabulary exposure

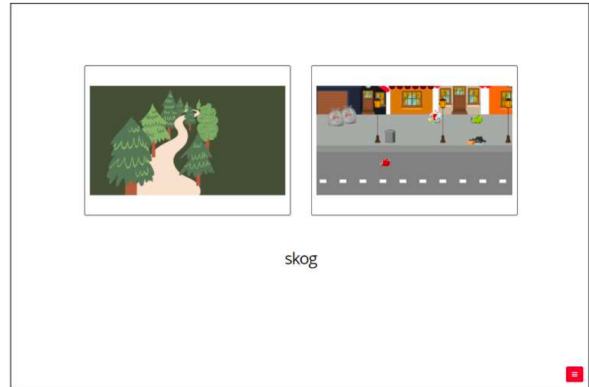


Figure 2: Picture-sentence matching task



Figure 3: Number agreement on adjectives (Polish-like)



Figure 4: Pronominal semantic gender for inanimate objects (Polish-like)

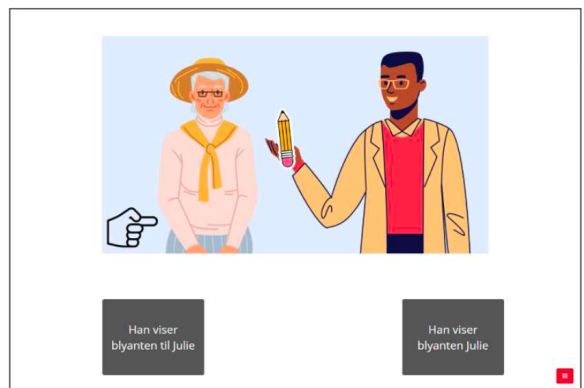


Figure 5: Ditransitives (English-like)

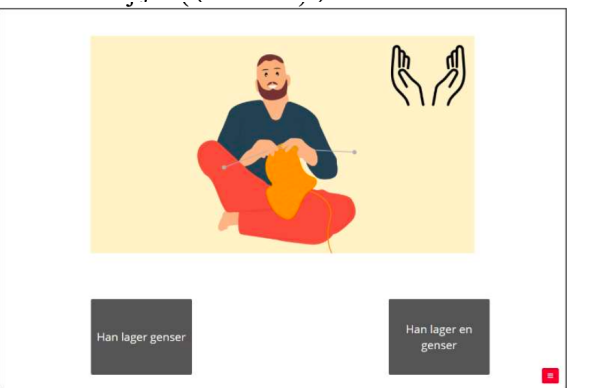


Figure 6: Articles (English-like)

## Investigating CLI in multilingual acquisition through an artificial language

Chloe M Castle (UiT The Arctic University of Norway)\*; Isabel Nadine Jensen (UiT The Arctic University of Norway); Natalia Mitrofanova (UiT The Arctic University of Norway); Marit Westergaard (UiT The Arctic University of Norway)

The Linguistic Proximity Model (LPM) argues that humans can draw on resources from both/all their previously acquired languages in developing a grammar of a new language (Ln), whether this transfer is facilitative or non-facilitative (Westergaard, Mitrofanova, Mykhaylyk & Rodina 2017). This is in contrast to the Typological Primacy Model (Rothman et al. 2019), which argues that there is wholesale transfer of the previously acquired language most similar to the Ln.

Mitrofanova, Leivada & Westergaard (2022) used a semi-artificial language (lexically similar to Norwegian, but with case-marking on nouns, as in Russian) in a Sentence-Picture Matching Task (SPMT) with Russian- Norwegian, English-Norwegian and Greek-Norwegian participants (Greek has case-making on determiners, English has no case). Results showed that Russian-Norwegian bilinguals scored significantly higher than English-Norwegians and Greek-Norwegians. The authors conclude that syntactic similarity is facilitative, but only when the expression of a property also has superficial similarity to a previously acquired language.

The current SPMT study replicates the previous study with a twist: two *different* artificial languages lexically similar to Norwegian. Language A has case-marking on nouns (similar to Polish, Figure 1) and Language B has case-marking on determiners (different from both languages, Figure 2). A subtractive language-groups design is used, with two participant groups: Polish-Norwegian-English multilinguals and Norwegian-English bilinguals. The presence of English is not problematic in this design, as it does not have case-marking.

Participants are exposed to 20 grammatically correct sentences in the artificial language assigned to them (A or B), with ten SVO sentences (Figure 3) and ten OVS sentences (Figure 4). They then perform the SPMT, hearing a total of 60 sentences, of which 15 each are SVO correct, SVO incorrect, OVS correct, and OVS incorrect. This is followed by a Norwegian proficiency test for the Polish-Norwegian-English multilinguals, and a language background questionnaire in order to exclude L1 Norwegian speakers with A2+ knowledge of a language with case.

For Language A we predict that the Polish-Norwegian speakers will perform better than the Norwegian speakers, with facilitative CLI from Polish. For language B, we predict that, similar to the Greek-Norwegians above, there will be less of a facilitative effect for non-superficial structural similarity. Preliminary results show that Polish-Norwegian multilinguals perform significantly better than Norwegian-English bilinguals in the noun condition. Interestingly, the Norwegian-English bilinguals perform much more strongly in the article condition than in the noun condition. The difference in performance between Polish-Norwegian multilinguals and Norwegian-English bilinguals might indicate that multilingual learners do not transfer one of their previously acquired languages based on the lexical Ln input, but rather that both/all pre-existing languages influence the acquisition process.

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Figures:

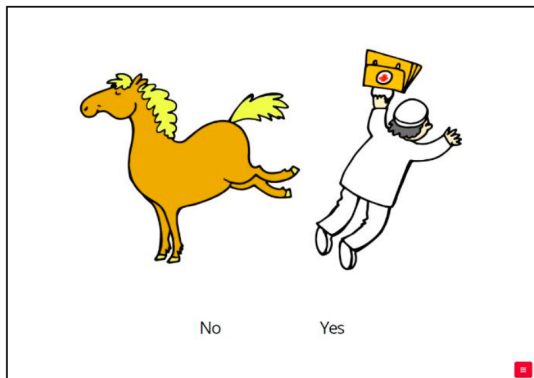


Figure 1: Case marking on nouns, SPMT

Audio: Hest-il sparker lege-su.

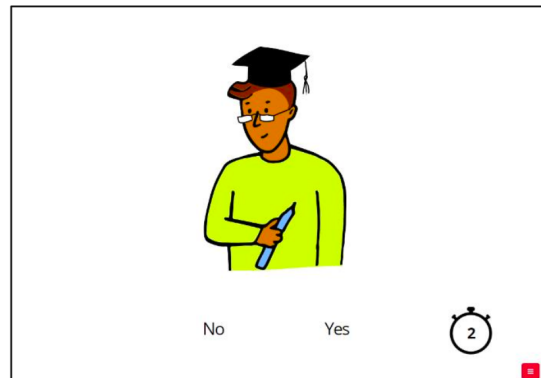


Figure 2: Case marking on articles, SPMT

Audio: Il student holder su blyant.

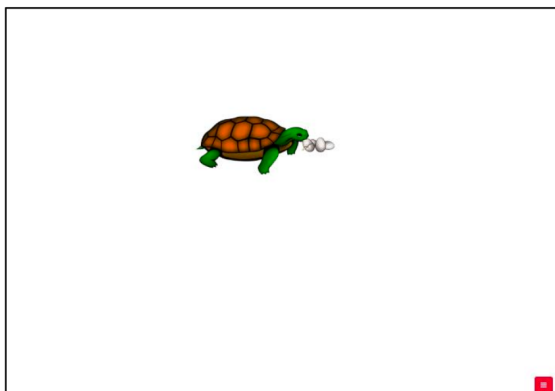


Figure 3: SVO correct, case on noun, exposure

Audio: Skilpadde-il spiser egg-su.

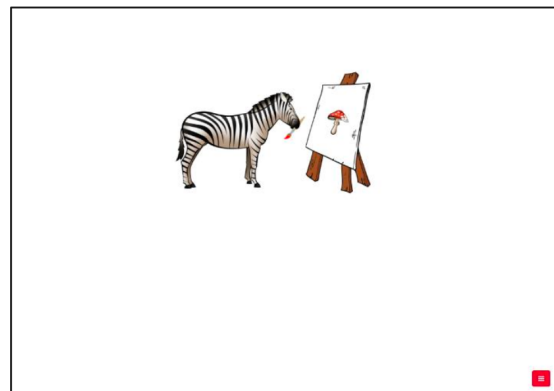


Figure 4: OVS correct, case on noun, exposure

Audio: Sopp-su tegner sebra-il.

## **Human translation vs machine translation post-editing or a combination of the two in translation teaching? Students' perceptions and translation competence**

Maria Constantinou (University of Cyprus)

Based on previous process- and product-oriented studies (Loock et al. 2022; Chen 2020; Loock 2019; Jian et al. 2019; Martikainen, 2019), this paper examines the results of an assignment-based approach to translation teaching within a general course of translation for students working on the language combination French-Greek and whose major is not Translation Studies but French and/or European Studies.

Students were divided into two separate groups and were asked to do post-editing and human translation. The first group revised Text 1 and translated from scratch Text 2 while the second group revised Text 2 and translated Text 1. The assignment was part of students' grading and included three different tasks: a) comparative evaluation of the results of three different online translators (google translate, deepl translate and systran); b) proposing a translation by revising one or more machine translation results; c) human translation (translating from scratch). Students were also asked to answer a questionnaire. The purpose of this questionnaire was to investigate, from a contrastive perspective, the usefulness of machine translation and post-editing within a general translation course, at which stage this should be introduced, creativity in post-editing and the effort put on the part of students to complete both tasks.

This paper will focus mainly on the students' perceptions on machine translation and post-editing and the quality of the texts translated and corrected by students in both groups. A preliminary analysis of the data points to a relative ability of students to identify errors in terms of fluidity and accuracy but relative incompetency in coping with such problems and in achieving naturalness in translation. Most students perceive machine translation as a tool that enables them to accomplish faster their tasks and produce more accurate translations as online translators help them to better comprehend the source text and avoid in this way misunderstandings. However, the majority considers that, within a course of general translation, students should get familiarized with human translation and at a later stage proceed with acquiring postediting techniques.

Key words: translation teaching, machine translation post-editing, human translation, student perceptions

# **Cross-linguistic influence and sibilant production: An acoustic analysis of voiceless retroflex and non-retroflex sibilants produced by L1 Polish, L2 English, L3 Norwegian learners**

Tristan R Czarnecki-Verner (Adam Mickiewicz University); Magdalena Wrembel (Adam Mickiewicz University); Jarosław Weckwerth (Adam Mickiewicz University)

The present study investigates the acoustics of L2 English and L3 Norwegian voiceless sibilants produced by L1 Polish multilinguals. Our investigation is part of a larger project examining the effects of cross-linguistic influence and multilingualism in various linguistic domains. Polish has a three-part voiceless sibilant system usually symbolized as /s/, /ʂ/, /ɕ/ in current literature such as Czaplicki et al. (2016; but with /f/ instead of /ʂ/ in more traditional representations, such as Jassem, 2003). English has a more usual two-part system with /s/ and /ʃ/. Norwegian has a three-part system reminiscent of German (/s/, /ʂ/, /ç/ in Kristoffersen, 2000; but /f/ for /ʂ/ in other sources, e.g., van Dommelen, 2019).

Our main research questions were: (1a) Do learners have one, two or three categories for their /f~ʂ/ across the three languages? (1b) Does transfer occur between the phonological systems of the three languages? (2) Is Norwegian /ç/ distinct from Polish /ɕ/, or is there a one-to-one mapping, as reported for Polish learners of German (Morciniec & Prędoła, 2005)? In addition to these main questions, we also investigated the acoustics of /s/ across the three languages, as well as the influence of spelling (with three different spellings for Norwegian /f/), vowel context, and proficiency in both English and Norwegian.

We predicted multiple levels of phonological transfer in sibilants produced by Polish learners of Norwegian. Assuming that the L1 Polish sibilant <sz> is retroflex ([ʂ]), we expected forward transfer during L3 production of Norwegian <rs> ([ʂ]). At higher Norwegian proficiency, participants were predicted to display reduced amounts of transfer from L1 Polish sibilants into L3 Norwegian. If the spectral means of L1 Polish <sz> and L3 Norwegian <rs> differ significantly for highly proficient learners of Norwegian, then that finding would weaken the more recent interpretation of Polish <sz> as a retroflex sibilant.

Participants included 40 (f=35) L1 Polish, L2 English, L3 Norwegian learners who were recorded reading naturalistic sentences in Norwegian, Polish and English (n=840 tokens per sibilant per language, i.e., Polish: /s/, /f~ʂ/, /ɕ/; English: /s/, /ʃ/; Norwegian: /s/, /f~ʂ/, /ç~ʂ~ɕ/). Sentence lists were randomized for each participant and target sentences were intermixed with sentences from a VOT investigation as distractors. The stimuli were presented in 3 separate language blocks, with each language mode induced via the Peppa (video watching and retelling) task in the respective language.

Our analysis will use generalized linear mixed effects modeling to quantify the spectral similarity of sibilant inventories both within and across languages. We will assess the sibilants according to acoustic measures grounded in previous literature (Jongman, Wayland & Wong, 2000; Nirgianaki, 2014; Lee, 2020), i.e., spectral mean, spectral peaks, and spectral moments (spectral center of gravity, spread, skewness and kurtosis). We will consider L2/L3 proficiency and use in Norwegian and English, obtained via several language background questionnaires and proficiency tests. Results of the analysis will determine whether learner proficiency in Norwegian impacted patterns of cross-linguistic influence pertaining to retroflexion in the sibilant phonemes of Polish, Norwegian and English.

## **What makes a theory more convincing? A social approach**

Ophelia Deroy

(Ludwig Maximilian University in Munich)

Theories, in linguistics and elsewhere, need to be accepted and endorsed by researchers. Philosophers and psychologists have now moved from an individual approach, where acceptance depends on individual's critical scrutiny, to a more social approach, where acceptance depends also on the community's response and patterns of persuasion. This talk will examine some of the conceptual toolbox that social epistemologists and psychologists are using to understand these dynamics.

**The power of Natural Linguistics: four levels of increasingly persuasive evidence for its superiority over other linguistic theories.**

Wolfgang U. Dressler (Vienna University)

The first level of evidence evaluates just which model has delivered the best analyses of single topics, e.g., of poetic occasionalisms. The second level of evidence concerns innovations on broader topics without comparably extensive and in-depth analysed correspondences in other theories, e.g., phonotactics. The third level of importance of evidence includes descriptions and explanations of important innovations which have been described and explained much less or not at all in other theories or where our innovations have been widely accepted, e.g., morphonotactics and morphopragmatics. The fourth and highest level of importance of evidence contains the analysis of new phenomena which Natural Linguistics can explain, but other (acquisition) theories cannot, unless they introduce important changes, i.e., strong blind alley developments in early stages of the acquisition of morphology and syntax, e.g., two subsequent blind alley developments of a young boy in expressing the Modern Greek subjunctive.

Anna Dziemianko

Adam Mickiewicz University, Poznań

### **Pictures in online dictionaries: Issues of access**

Empirical research shows graphic illustrations in dictionaries to be useful in reception and retention. Yet, their harmful effect on vocabulary learning has been attested, too. Lexicographers thus need to decide whether to include pictures in online dictionaries and how to display them, given the constrained presentation space in hand-held portables and regular computers, on which online dictionaries are often accessed. It seems worthwhile to see whether making pictures instantly visible in entries or hyperlinking them in order to save presentation space is more recommendable. The aim of the paper is to determine if the presence of pictures in online dictionaries and their access path (instant/default visibility vs. hyperlinking) affect meaning reception and retention. An attempt is also made to explore the influence of pictures on the time of decoding. In an online experiment, meaning of English infrequent nouns had to be explained following the consultation of purpose-built, monolingual online dictionary entries. Three test versions were created, depending on access to pictures in the supplied entries: a test where entries contained pictures visible by default, a test with pictures available by clicking hyperlinks in entries, a test without access to any pictures. The results show that meaning reception is the most successful when pictures are either visible by default or hyperlinked. Learning meaning, in turn, is facilitated by pictures visible by default; entries with hyperlinked pictures are no more useful than those without any pictorial support. Hyperlinked pictures also extend comprehension time, while instantly visible ones do not. The study confirms, then, that pictures in online dictionaries are useful for reception, and suggests that they need to be instantly visible if meaning is to be remembered.

# THE ROLE OF DIFFERENTIAL CROSSLINGUISTIC INFLUENCE AND OTHER CONSTRIANTS IN PREDICTIVE L2 GENDER PROCESSING

## 1. Abstract

Previous studies on the use of morphosyntactic gender cues for linguistic prediction show that non-native speakers usually exploit grammatical gender information differently from native speakers. This difference has been attributed to various constraints. The present study examines the role of some of these constraints: differential crosslinguistic influence (DCLI), knowledge of L2 lexical gender, gender congruency and L2 fluency. Specifically, the study aims to (a) examine whether there is a difference between L1 and L2 predictive gender processing; (b) determine the magnitude of influence of the Oromo dialects on processing Amharic gender; (c) explore the role of knowledge of L2 lexical gender in augmenting predictive L2 gender processing, and (d) investigate the impact of L2 fluency and attitude of the speakers towards L2 on predictive L2 gender processing. To this end, the study investigated L1 Oromo late L2 learners of Amharic as well as monolingual Amharic speakers, using the webcam visual world paradigm and auxiliary offline experiments. Two groups of L2 Amharic learners, *i.e.*, L1 Eastern Oromo L2 Amharic and L1 Western Oromo L2 Amharic were investigated. The Eastern Oromo dialect patterns with Amharic in terms of gender agreement, and the Western Oromo dialect is different from both Amharic and the Eastern Oromo dialect. The study targeted three gender agreement domains: noun-adjective, noun-demonstrative pronoun, and noun-interrogative pronoun. Between-group comparisons based on the proportion of eye fixation show that exposure to the gendered Eastern Oromo dialect facilitates predictive L2 gender processing. Gender congruency, knowledge of L2 lexical gender and L2 fluency also moderate L2 predictive gender processing. The study has ecological relevance as it presents empirical data from underrepresented languages. It also shades light on the arguments in the computational and the representational approaches towards grammatical gender processing.

*Key words:* Differential crosslinguistic influence, gender agreement, predictive processing, second language

## 2. Supplementary materials

### 2.1. Summary of the methods

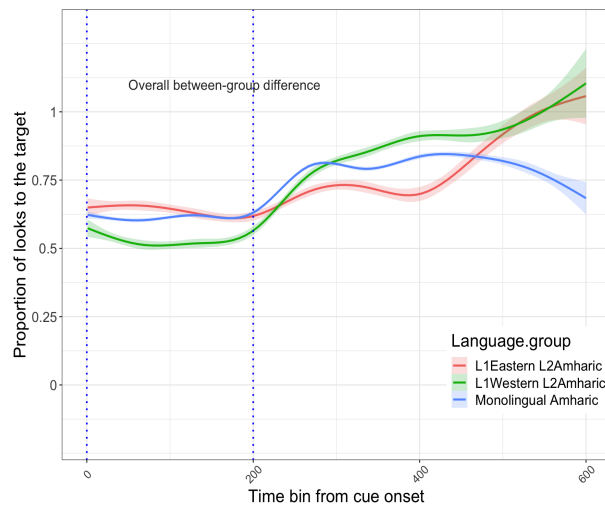
Combinations of three methods were used in the study: (1) *Background questionnaire* (to probe language background of the participants, attitude towards Amharic, and self-reported L2 fluency), (2) picture naming production task (to test the participants' knowledge of L2 gender assignment), and (3) webcam eye-tracking (the main data gathering tool). The study setting is Ethiopia, East Africa. Amharic is a Semitic language and Oromo is a Lowland East Cushitic language. Both languages belong to the Afro-asiatic language family.

### 2.2 Graphs

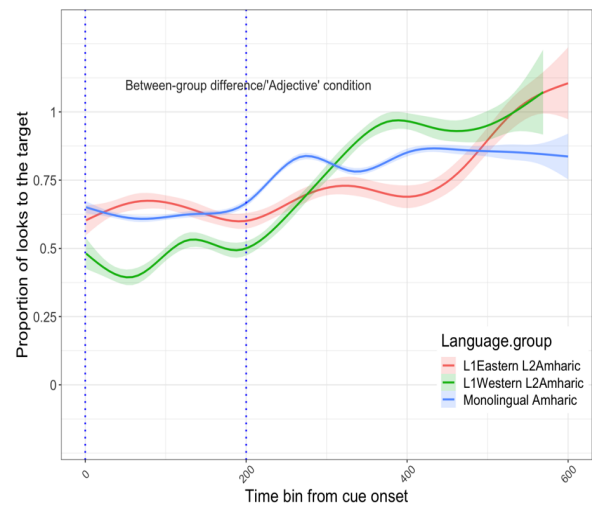
#### a. *Between-group differences*

**Results:** In Figure 1-4, the first broken lines (**with 0 value**) indicate the onset of the gender cues and the second broken line the onset of the target nouns. All statistical analyses were performed on the proportion of eye fixation within this time window. The horizontal line (x axis), represents the time course of predictions, *averaged into 10ms time bin*. **Figure 1** shows that the overall proportion of eye fixation of the L1Eastern L2Amharic and the monolingual Amharic speakers is significantly higher than that of the L1Western L2Amharic. This difference is consistent across the three agreement

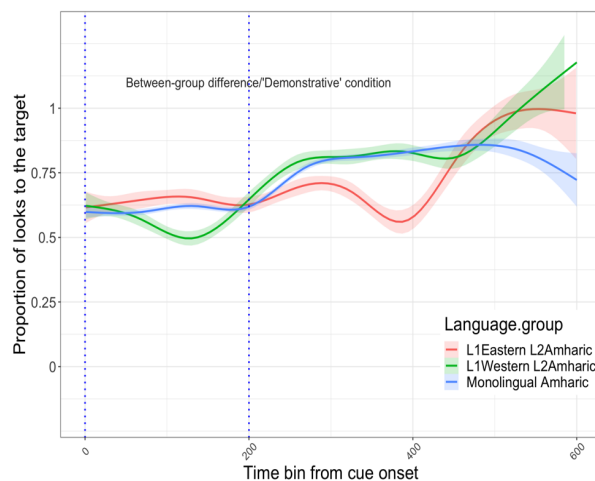
domains: noun-adjective gender agreement (**Figure 2**), noun-demonstrative pronoun gender agreement (**Figure 3**) and noun-interrogative pronoun gender agreement (**Figure 4**). Generally, the results show the facilitation effect of the Eastern Oromo dialect.



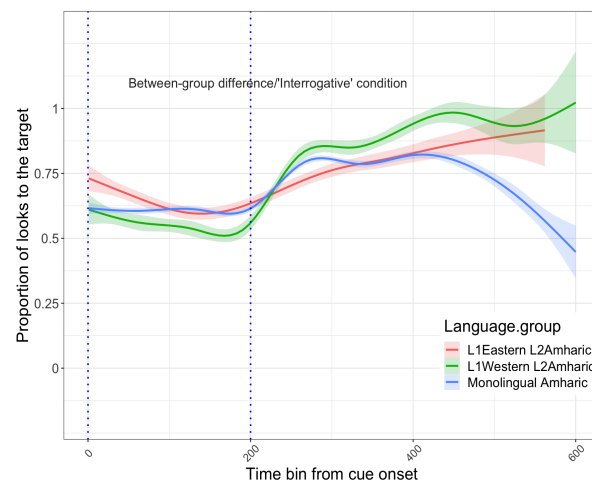
**Figure 1:** Overall proportion of eye fixation



**Figure 2:** Fixation in the adjective condition



**Figure 3:** Fixation in the demonstrative condition

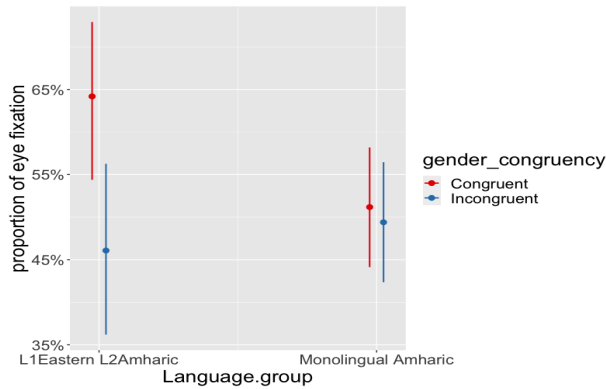


**Figure 4:** Fixation in the interrogative condition

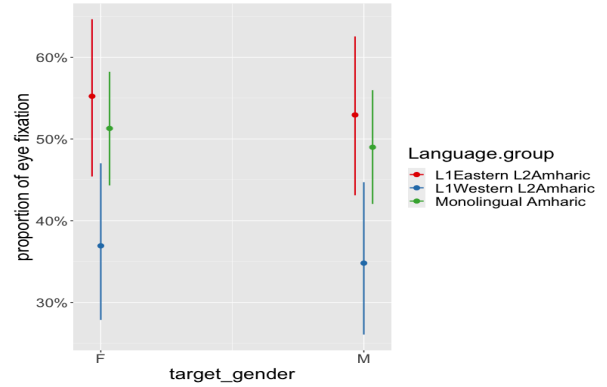
*b. The effect of gender congruency and gender*

**Results:** Only the effect of lexical gender congruency between the Eastern dialect and Amharic was investigated. Responses of the speakers of the Western Oromo dialect were excluded since the Western dialect does not have feminine gender. **Figure 5** shows the proportion of eye fixation in gender-congruent and incongruent conditions. The Figure shows that the proportion of eye fixation of L1 Eastern L2 Amharic learners is significantly high in the congruent condition, indicating a facilitative role of lexical gender congruency between the Eastern Oromo dialect and Amharic. **Figure 6** shows that the proportion of eye fixation in masculine and feminine gender conditions.





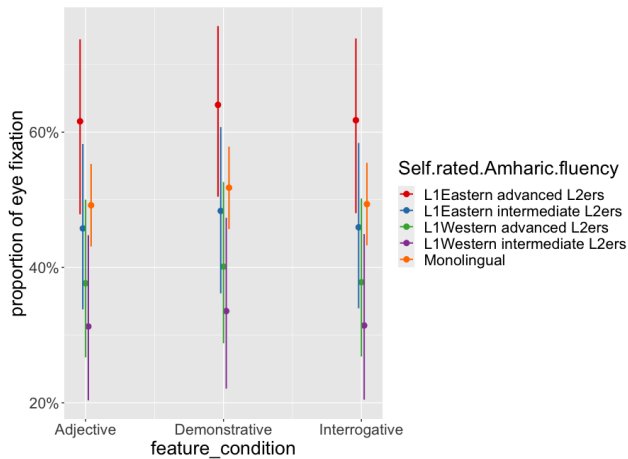
**Figure 5:** Congruency effect



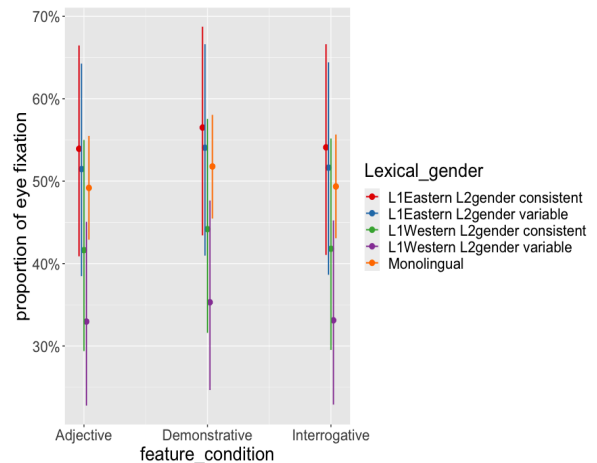
**Figure 6:** The effect of gender

*c. The role of knowledge of gender assignment, L2 fluency and attitude*

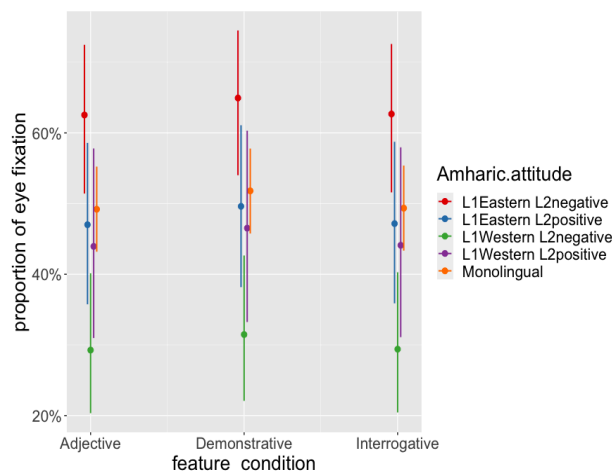
**Results:** **Figures 7-9** illustrate the influence of other factors. The L2 Amharic speaking participants were divided into two, using median split based on L2 self-reported fluency, knowledge of L2 gender assignment and attitude scores. Based on the self-reported fluency score, the bilingual participants were divided into ‘advanced L2ers’ and ‘intermediate L2ers’. Based on the gender assignment test scores, the participants were divided into ‘gender consistent’ and ‘gender variable’ groups. Finally, the bilingual participants were divided into ‘L2negative’ and ‘L2positive’ depending on their score on the L2 attitude test. Comparisons among these groups show that L1Western L2Amharic intermediate speakers are less effective than the L1Eastern and the monolingual Amharic speakers in terms of using predictive processing (see **Figure 7**). Furthermore, L1Western L2Amharic speakers that have variable knowledge of L2 gender assignment are less effective than the L1Eastern and the monolingual Amharic speakers (see **Figure 8**). Finally, L1Western L2Amharic speakers that have negative attitude towards Amharic are less effective than the L1Eastern and the monolingual Amharic speakers (see **Figure 9**). In sum, the results show that only the speakers of the Western Oromo dialect are influenced by L2 fluency, knowledge of L2 gender assignment and attitude towards Amharic.



**Figure 7:** The influence of self-reported L2 fluency



**Figure 8:** The role of knowledge of L2 lexical gender



**Figure 9:** The influence of attitude towards Amharic

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## Foreign lexical items in the lexicon of the Karaim language

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Karaim, the traditional language of the originally Crimean followers of Karaite Judaism, has long been spoken as a minority language in three small clusters located in Eastern Europe (of which now only the Lithuanian community in Trakai continues to speak Karaim on some level). Without much official recognition, let alone regulation, historically this Turkic language has been in constant intensive contact with the languages of other peoples, hence it is no surprise that its lexicon contains a significant number of loanwords. Besides other Turkic languages contributing to the core Kipchak component, Slavic languages have also left a significant mark. Outside of this, for cultural reasons, there was also a strong influence from within the group of speakers of Karaim that led to the adoption and integration of loanwords from the Jewish liturgical languages, i.e. Hebrew and Aramaic.

Throughout the years, there have been several rather narrowly focused articles on lexical items belonging to the specific components (see e.g. Zajączkowski 1959, 1961 & Jankowski 2013), how they came to be and how several specific items got adapted, but the question of how sizeable the components actually are and their distribution across word classes and semantic areas has, to my knowledge, mostly remained unanswered.

In the proposed poster presentation, I will present the data gathered and examined during my research in progress where I analyze entries from dictionary resources, i.e. Baskakov's *Karaimsko-russko-pol'skiy slovar'*. The main objective of my investigation is to, as precisely as possible given the nature of the data, provide proportions of foreign components in the general lexicon of modern Karaim by their origin and then to further describe the loanwords in terms of their affiliation to certain semantic fields and level of incorporation into the grammatical system. As the dictionary contains lexemes from all three dialects of the language, each dialect is analyzed separately.

The reason why I find it important to conduct such an analysis, outside the obvious general frame of contact linguistics, is that I believe that by comparing it to similar analyses of other Jewish diaspora languages (granted that Karaim has a special yet through linguistical means defensible place among them), possible regularities, and tendencies allowing predictions regarding the distribution of said elements (if only in the dichotomy of liturgical vs majority languages) can be discovered. Such regularities and tendencies would then be helpful in the documentation and possibly even revitalization or revival efforts of less documented Jewish diaspora languages. The presentation will touch only briefly upon these viable generalizations, mostly in contrast to Yiddish, as further analysis of other languages is required for their accurate postulation.

*Keywords:* Karaim, lexicon, loanwords, language contact

**Word count:** 431

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# Ability of different machine learning algorithms to predict the classification of second language vowels

Georgios P. Georgiou (University of Nicosia)

Machine learning techniques have been increasingly utilized over the past decade to predict second language (L2) speech perception patterns. This is based on the either direct or indirect assumptions of several speech models (e.g., Speech Learning Model/SLMr; Flege, 1995, Flege & Bohn, 2021; Perceptual Assimilation Model/PAM-L2, Best, 1995; Best & Tyler, 2007; Second Language Linguistic Perception model; Escudero, 2009; Universal Perceptual Model, Georgiou, 2021) that acoustic/articulatory-phonetic similarity between first language (L1) and L2 sounds can predict the perception of L2 sounds. However, predictions have largely depended on the use of discriminant analysis approaches (e.g., Escudero et al., 2012; Georgiou, 2022). To date, no studies have compared the classification accuracy of different algorithms. This study aims to assess the ability of three machine learning algorithms, namely, linear discriminant analysis (LDA), decision tree (C5.0), and artificial neural network (NNET) to predict the classification of L2 sounds in terms of L1 categories. The models were trained using the first three formants and duration of the L1 Cypriot Greek vowels /i e a o u/ and fed with the same acoustic features of the L2 Standard Southern British English (henceforth English) vowels /i i: e ɜ: æ ɑ: ʌ ɒ ɔ: u: ʊ/. The trained data were produced by 22 (*n*females = 11) adult Cypriot Greek speakers. The vowels were embedded in a /pVs/ context and were part of the carrier phrase 'Léne <target word> tóra'. The testing data included the same acoustic parameters for English vowels and were produced by 20 (*n*females = 10) adult English speakers. The vowels were included in an /hVd/ context and as part of the carrier phrase "They say <word> now". The output was normalized using the Lobanov method. To validate the algorithms' accuracy, adult Cypriot Greek speakers of L2 English completed a perceptual classification task. The participants were 20 Cypriot Greek speakers (*n*females = 10) with an age range of 19-43 (*M*age = 31.9, *SD* = 6.93). They were born, raised, and permanently resided in Cyprus at the time of the study and had never lived in an English-speaking country for a long time. The results indicated that NNET predicted with success the classification of all L2 vowels with the highest probability in terms of L1 categories, while LDA and C5.0 missed only one vowel. NNET was also the most accurate in predicting the full range of above chance responses followed by LDA and C5.0. Overall, NNET demonstrated the best discrimination accuracy slightly followed by LDA, while C5.0 did not meet expectations. The models' plots are illustrated in Figures 1-3. The findings can have significant implications for updating the current speech acquisition theories by better understanding the role of acoustic cues in L2 speech perception and for better modelling of listeners' L2 sound discrimination difficulties using a classifier that offers optimal predictions.

Keywords: machine learning algorithm, sound classification, speech perception,

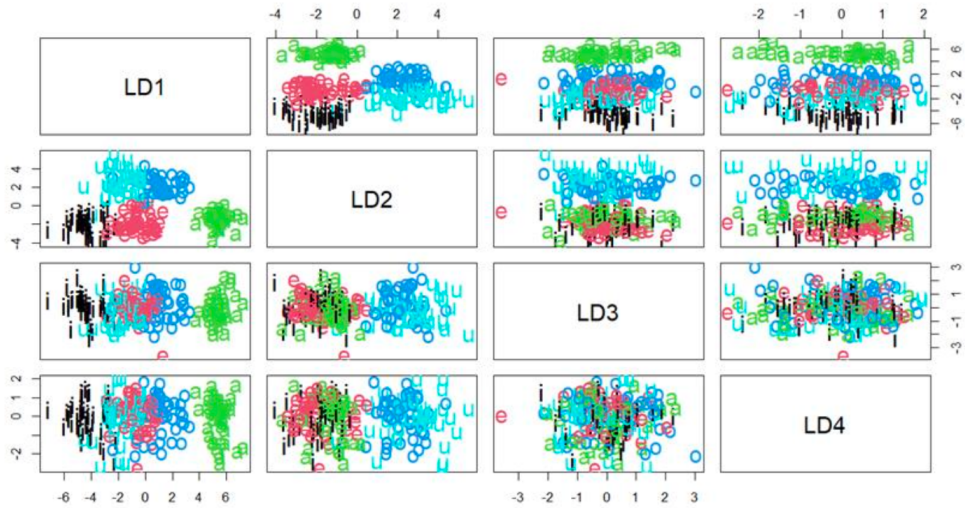


Figure 1: Linear Discriminant Analysis scatter plot for vowel classification.

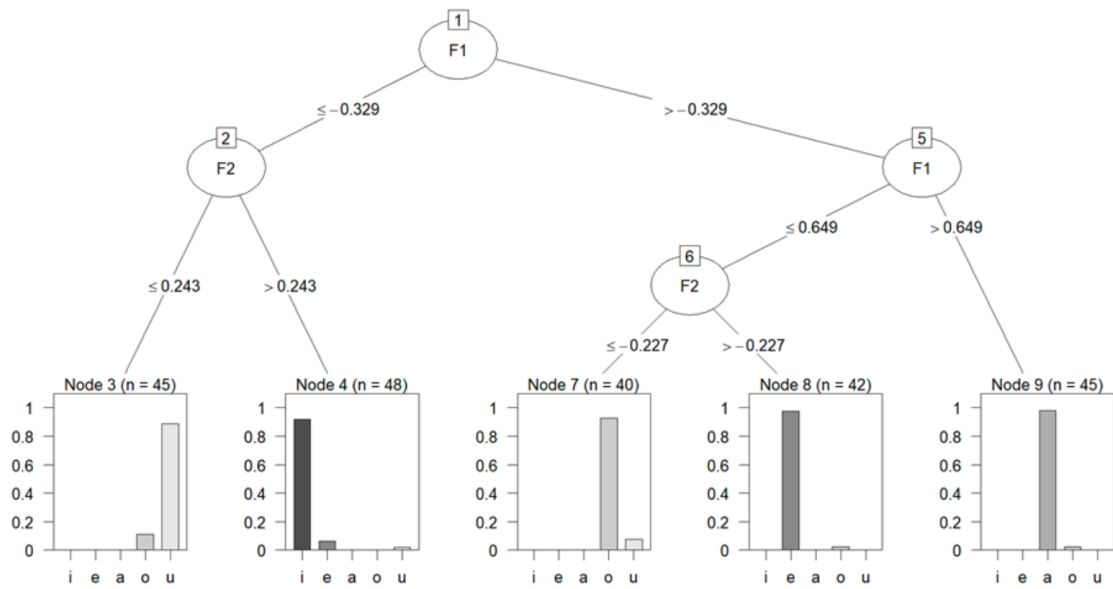


Figure 2: Decision tree for the C5.0 algorithm.



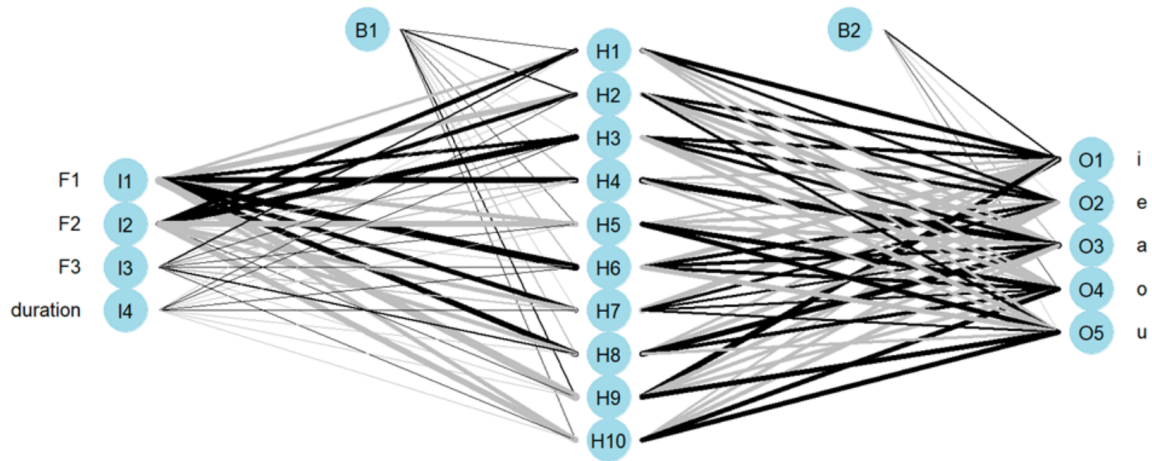


Figure 3: NNET architecture plot for the trained vowels.

## References

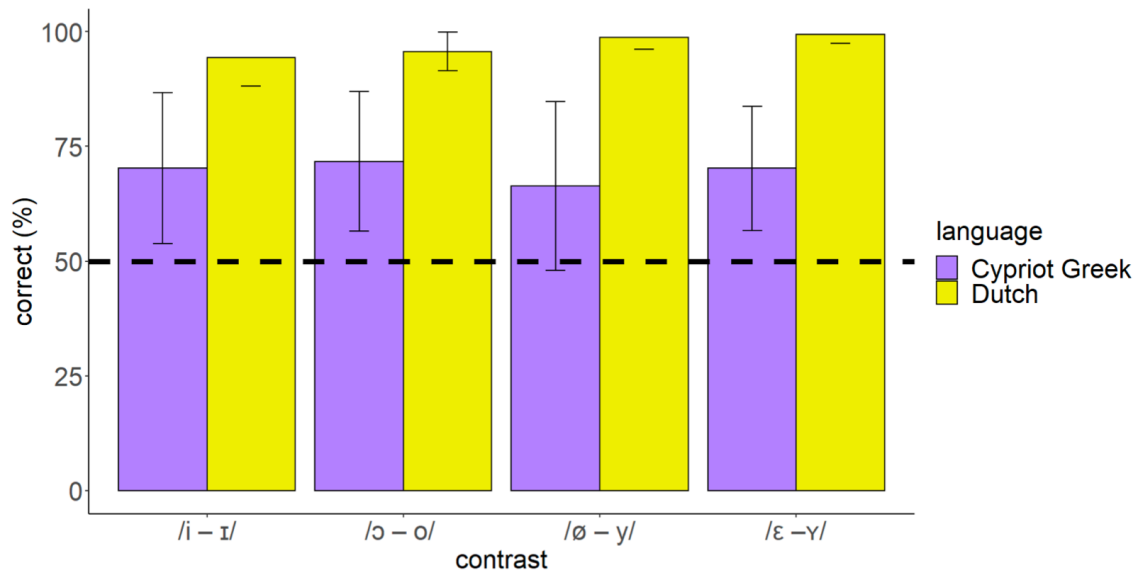
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# Predicting Cypriot Greek Listeners' Perception of Dutch Vowels using Acoustic and Perceptual Similarity

Georgios P. Georgiou (University of Nicosia); Dimitra Dimitriou (University of Central Lancashire)

Although there has been a great number of studies investigating the perception of nonnative sounds by listeners with different first language (L1) backgrounds (e.g., Aoyagi & Wang, 2022; Georgiou, 2022) research needs to expand to underresearched sets of languages and incorporate predictions conducted using computational algorithms and new speech models. The purpose of this study is twofold: First, it aims to investigate the perception of Dutch vowels by Cypriot Greek listeners and, second, to assess the capacity of a linear discriminant analysis (LDA) model in predicting the classification/discrimination of nonnative sounds based on crosslinguistic acoustic similarity and the ability of the Universal Perceptual Model (UPM) in making accurate empirical predictions about the discrimination accuracy of nonnative sound contrasts based on perceptual similarity. Twenty-one Cypriot Greek speakers (females = 13) in the age range of 19-35 ( $M = 25.62$ ) participated in a classification and an AXB classification task; the stimuli were produced by two Standard Dutch speakers (1 male, 1 female) in /hVd/ target words as part of the carrier phrase “Hoor je <target word>”. Another group of 10 Dutch speakers (age range 23-38;  $M = 29.27$ ; females = 6) served as controls and completed only the AXB task. The classification/discrimination predictions were conducted using an LDA algorithm, which was trained on the first three formant frequencies and duration of Cypriot Greek vowels as elicited by the productions of 12 adult female native speakers. The testing set including the same measurements for Dutch vowels as elicited by 20 adult female Dutch speakers was supplied to the trained model (the target words were monosyllabic words before coda [s] in both languages). The predictions of the UPM model were based on the results of the AXB task and relied on the concept of overlap, that is how acoustically close two nonnative contrast members are perceived to be to each other depending on their classification in terms of one or more L1 sounds (complete, partial, and no overlap). The findings indicated that listeners classified each nonnative vowel as one or more L1 vowels, while the discrimination accuracy over the nonnative contrasts was moderate (see Figure 1) as all of them presented with partial overlap. The results verified that crosslinguistic acoustic similarity predicted to a large extent the classification of nonnative sounds with the highest proportion and that both the acoustic and perceptual similarity predicted the discrimination accuracy of all contrasts. Concluding, although listeners are at the zero stage of language learning, they may potentially activate novel phonetic categories easier for vowels that were classified as more than one L1 category since they do not acoustically equate them with a particular dissimilar L1 vowel. In addition, being in line with prior findings, these findings demonstrate that acoustic and perceptual cues are reliable predictors of nonnative contrast discrimination and that the UPM model can make accurate estimations for the discrimination patterns of nonnative listeners, which can be also compared to those of other popular speech models such as PAM (Best, 1995) and L2LP (Escudero, 2009).

*Keywords:* acoustic similarity, perceptual similarity, speech perception, nonnative language



**Figure 1.** Correct discrimination of the Dutch vowel contrasts by Cypriot Greek listeners and Dutch speakers (dashed line shows chance level)

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## Focus and givenness in Turkish Sign Language (TİD)

Aslı Gürer (İstanbul Bilgi University); Serpil Karabüklü (University of Chicago)

Cross-linguistically, information structure, i.e., focus and givenness, influence the duration of target constituents/have different prosodic correlates (Kügler 2008; Féry and Kügler 2008). This study investigates duration as a possible phonetic correlate of focus and givenness in Turkish Sign Language (TİD) based on an experimental study. Following Rooth's (1992) question-answer construal, 20 participants answered the Deaf research assistant's question about a gif image. The design included 3 syntactic positions for focus (subject, object, and verb) X 3 focus types (broad focus (BF), narrow focus: presentational (PF) and contrastive (CF)) X 3 different verbs, 27 target items in total. Broad focus refers to all new sentences (1), and only a single unit is focused in narrow-focus constructions (2-3). All pre-focal and post-focal constituents that are mentioned in the previous utterance are taken as given. All focal constituents, whether discourse-given or new, are analyzed as focal units. Broad-focus sentences will be taken as the default pattern and a baseline to reveal narrow focus conditions.

(1) A: WHAT HAPPEN?

B: RAIN.

A: WHAT ELSE?

B: [ECE BANANA EAT]<sub>BF</sub>

(2) A: ECE WHAT EAT?

B: ECE<sub>given</sub> [BANANA]<sub>PF</sub> EAT<sub>given</sub>

(3) A: ECE WHAT EAT? BANANA OR APPLE?

B: ECE<sub>given</sub> [BANANA]<sub>CF</sub> EAT<sub>given</sub>

A Deaf assistant annotated the durations of all target items. We first tested the duration difference between focal and non-focal signs only in PF and CF conditions with a linear mixed-effects model. The results showed that focal signs were signed significantly longer than non-focal signs in all syntactic positions and in both focus types. To test the givenness and focus distinction, we analyzed the duration of given and focal items in BF, PF, and CF conditions in all positions with a linear mixed-effects model. The results showed that a significant compression effect is observed in the pre-focal domain, while there is no significant compression effect in the post-focal domain. This study shows that given and focus distinction is realized via a phonetic correlate duration in manual signs; hence this distinction is universally marked across modalities.

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Małgorzata Haładewicz-Grzelak, Katarzyna Mazur-Włodarczyk, Elżbieta Karaś,  
Joanna Kolańska-Płuska, Przemysław Misiurski (Opole University of Technology)

## **An Edusemiotic analysis of the *wenming* concept in the People's Republic of China**

The term 'edusemiotics' was coined by Marcel Danesi in 2010, as an amalgam of several epistemologies: semiotics being a science of signs, a theory of learning (i.e. a theory of how signs are learned) and education, which he describes as "philosophy coupled with the practical art/science of teaching individuals of how to interpret and understand signs" (Danesi 2010: vii). The motivation for such a move was that semiotics, as a science of signs, is an intrinsically suitable tool to investigate how signs are learned (Danesi 2010: vii). Throughout the years, edusemiotics has solidified as a platform and point of contact for the scholars developing various theories of education with those engaged in semiotic practices (Nöth 2010; Semetsky et al. (2016). In the presentation, we intend to show the epistemological power of blending the *science of signs* with the science of *how we learn* in a case study of the Chinese concept of *wenming*. In the analysis, we will see how the concept of *wenming* binds the two paths: the educational, in particular with an emphasis on *Bildung*, and on meaningful experience through action with the hermeneutic grounding.

The Chinese concept of civilising – *wenming* [文明] may be translated into English as: 1) nature, a natural phenomenon; 2. culture [in association with the character 文, constituting the word *wenming*]; 3) something new, modern, or even "western" (used in this context during the Qing dynasty and the early Republic of China); 4) civilization, achieving a certain level of social advancement and the sum of material and non-material wealth achieved by the given society; 5) (...) – civilizational advancement, achieving a higher level of culture, becoming civilized – acquiring good manners; 6) good manners, politeness; 7) civility, good upbringing, displaying good manners or creating and spreading culture. In the presentation, we will evaluate the concept of *wenming* as a strategy to "ecologise" Chinese society. The collected corpus of digital documentation of all types of visual and verbal texts related to propagating this concept, collected in the years 2010-2021, constitutes the database of the analysis.

We single out several threads that are prominent in trying to capture the hermeneutic 'density' of the *wenming* concept with respect to references to nature, connected with the concept of *Bildung*. The features that we singled out that define the semiotic prominence of the concept were: references to nature, with the concomitant total absence of references to *techne*, processual character, centripetal, cohesive dynamics (towards the center, which is, of course, also related to the fact that China is referred to as a country of the center) with the absence of centripetal dynamics; *wenming* being an attribute to be acquired, which involves a fortitive aspect, and a fusion of horizons. *Wenming* was thus isolated as a paramount edusemiotics marker, of a hermeneutical nature, and is pivotal in creating an ecosystem of cultural significance.

Word count of the abstract: 461

**Key words: edusemiotics, hermeneutics, wenming, social engineering, Chinese economic culture**

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Fig. 1 A token from our analytical corpus (photo: Katarzyna Mazur-Włodarczyk : on the plate) 俭 - sparingly (on the right) 文明餐桌 - civilized table; 厉行节约 - practice strict economy (applying austerity measures).

# The system behind the libfix

Camiel Hamans, University of Amsterdam

This paper wants to discuss two issues:

- an apparently unsystematic word-formation phenomenon: libfixing
- in connection with this and related thereto the difference between syntagmatic and paradigmatic word formation and productivity

In 2010 Arnold Zwicky introduced the term ‘libfix’ for non-morphemic segments that can be ‘liberated’ form a word and that can become productive as if it was an affix, as in (1) –(3):

(1) anniversary	(2) delicious	(3) Armageddon
-Iversary	-licious	-(ma)geddon
blogiversary	Bubblicious	snowmageddon
monthiversary	babelicious	Obamageddon

At first sight, these new affix-like segments seem to have been formed and to operate without any system. In this presentation this will be shown to be an incorrect assumption. To clarify this, a parallel will be drawn with another non-morphemic process of word formation, blending.

The same systemic factors that play a role in blending appear to work in libfixing. These are syllabic structure and stress. Moreover, both blends and libfixes are consciously formed.

However, most blends consist of truncated parts of both source words, whereas the result of libfixing is the combination of a full first source word with a curtailed segment of the second source word.

In addition, there may appear a semantic difference. Libfixes turn out to be the semantic head of the newly formed words, where the essential meaning aspect of the model word (= the second source word) appears to have been transferred to the libfix. This semantic primacy of the left part only applies to a certain type of blends. This is the case in the examples under (4), but not in those in (5).

(4) sportel	(5) Oxbridge
glamping	stagflation
advertorial	brunch

For instance, a *sportel* is a sort of hotel, whereas Oxbridge is just the fusion of features of Oxford and Cambridge. Because of this difference, one cannot fully equate blending and libfixing.

The conclusion of this part of the research will be that the result of blending and libfixing share common formal features, but that the phenomena must nevertheless remain distinct.

As their name already suggests libfixes are affix-like elements which may become full fledged affixes at a later stage of their development. In the second part of this presentation the differences and similarities are explored between affixes, that have arisen in the traditional way, and this new group. Traditional suffixes are considered to be the result of a process of grammaticalization and their development goes through a syntagmatic process, compounding, whereas this libfix group arise rather from a paradigmatic word-formation process, in which the notion analogy plays an essential role (cf. hamans 2021).

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## **In a search of the missing link: The phonemic awareness in transparent and opaque languages explored by visual codes.**

Marlena Hewitt (AHEPUW )

A number of studies have shown the importance of phonemic awareness in the process of acquiring a language as a building block or a strong foundation for reading skill and communication overall. Other studies described various kinds of languages such as transparent or opaque language. This research draws attention to exploration of the relationship between a transparent language (e.g. Polish ) and an opaque language (e.g.English) and its letter- sounds relationships focusing on the similarities, but mostly differences of the sound of vowels in both languages by using a visual code specifically designed for this study. The inspiration for this study was a Stroop test where participants had to read text and colors using two different systems of communication. The same principles were compared to reading in two kinds of languages. The Stroop test also included work with text and color which inspired and successfully led to creating visual codes for the vowels. Participants were 56 students studying English as a foreign language for 10 to 16 years. They were ranging from an age of 13 to 19 and there were 28 boys and 28 girls. All students were tested on 15 common words and 5 short sentences in American English. Later, the same students were presented with the color code for English vowels ( a, i, e, o, u) The code divided each vowel into four categories: short, long, silent, and shwa. Results showed that the color code helped the students to improve their phonemic awareness changing the scores from 65% to 97% reading accuracy. Moreover, the results pointed out the challenges that students face while acquiring an opaque language: incorrect reading, applying old knowledge to a new situation, problems with short and long vowels, confusion with silent vowels and schwa, inconsistencies in reading.

Lastly, this work questions design and structure of educational system in foreign countries who teach English as a second language to overthink the curriculum and ways of teaching English as an opaque language from the beginning introducing the basics such as ' the sound the letter makes' because the study shows that the lack of phonemic awareness has cripple the process of learning. The study reveals that none of the participants up to age 19, after 16 years or acquiring English have nighter heard of nor had an explanation of long and short vowels.

Keywords:phonemic awareness transparent language, opaque language, vowels, color codes,

# Improving decision making in neural machine translation: a cognitive look at the word sense disambiguation problem

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Currently, there are several neural machine translation systems available to help translators in their work. A frequent problem with the systems is, however, that they are not always able to suggest the right target word or phrase equivalent if the source language text contains a homonymous item. Thus, the English *screen*, for example, may refer to a sieve or to a computer display, depending on the context, and neural machine translation systems frequently fail to figure out which equivalent they should offer in such cases.

The problem is further aggravated by the fact that neural machine systems often suggest one equivalent in one place in the text and a completely different equivalent in another place. That is, neural machine systems suffer from a certain degree of inconsistency, which, especially in the case of terminologically rich texts, is a major problem.

The present paper takes a look at the problem by considering some real-life cases of professional translation where the neural machine system did not succeed very well with regard to making the decision as to which particular alternative it should offer for a particular slot in the target text. The paper then suggests some avenues for approaching the problem in cognitive terms and proposes one conceivable way to a solution by means of frames (cf. e.g. Faber 2015).

The neural machine system examined here is the one used by Trados, but it is just as common in other NMT systems, which means that it is highly desirable that the problem can be at least mitigated if not solved. For an overview of the principles and recent developments of neural machine translation, see Stahlberg (2020).

The tentative solution to the above selection problem outlined here makes use of the notion of a frame and proposes that the algorithm(s) responsible for the decision making with regard to the selection of the target language word or phrase in these cases be supplemented by a cognition-based frame which has the ability to scan the preceding and following context for a certain number of words/phrases and/or clause or other relevant boundaries to correctly fathom the nature of the problematic homonymous item. This way, the chances of excluding the wrong choices are likely to increase as the wrong choices will not have the cognitive properties the right choice is required to possess.

The paper suggests some specific ways of setting up the frames required so that the MT system used will be able to exclude the wrong choices and provide suggestions which are likely to be the ones needed. For this purpose, the paper suggests a set of frame conditions which the right or suitable equivalent candidate must meet and another set of conditions which the equivalent must not meet. Additionally, a third set of conditions will be suggested for the purpose of fine-tuning the choice of the equivalent(s) in certain cases.

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**KEYWORDS:** neural machine translation, word sense disambiguation

## The perception of Norwegian retroflexes by L1 Polish L3 Norwegian speakers: Discrimination and rated dissimilarity tasks

Krzysztof Hwaszcz (Adam Mickiewicz University); Anna Balas (Adam Mickiewicz University); Magdalena Wrembel (Adam Mickiewicz University)

This study focuses on the perception of retroflex consonants across Polish, English and Norwegian systems. The degree of perceived cross-linguistic similarity between the learner's L1 and L2 is claimed to mediate discrimination of L2 sounds (Flege & Bohn 2021; Cebrian 2022). The present study takes the idea further to apply in multilingual phonological acquisition of retroflexes and to assess whether the perceived similarity of Norwegian, Polish and English consonants is mediated by presence or absence of retroflexion.

Cross-linguistically, retroflexes are considered to be marked (Greenberg 1966), as they occur relatively infrequently and only in large inventories (Maddieson 1984). Norwegian has a series of coronal consonants which are distinguished by retroflexion: alveolar /t, d, s, l, n/ and retroflex /t̪, d̪, ʃ, ʎ, ŋ/, whereas English only has /t/ and Polish sibilants and stops have a controversial retroflex status -- some cues to retroflexion are argued to be manifested in /ʂ/, /ʐ/, /t̪ʂ/ and /d̪ʐ/ and cues to allophonic retroflexion – in /t/ and /d/ (Żygis 2005; Żygis, Pape & Jesus 2012).

33 L1 Polish, L2, English and L3 Norwegian listeners (all advanced classroom setting learners) participated in two perceptual tasks: an oddity categorial discrimination and a rated dissimilarity task (RDT). 180 triads in the L3 Norwegian discrimination task were made up of tokens of consonant categories that contained both retroflexes (i.e., /t̪ d̪ ʃ ʎ ŋ/) and non-retroflexes (i.e., /t d s l n/) in inter-vocalic position. In the cross-linguistic RDT, participants rated (dis-)similarity between Norwegian and English/Polish retroflexes and non-retroflexes in 160 diads, on a scale from 1 to 7.

We aimed to investigate how L1 Polish / L2 English / L3 Norwegian instructed learners rate the differences in retroflexion and place and/or manner of articulation (P&MoA). We hypothesized a hierarchy which demonstrates the gradation of phonological proximity based on four conditions: (1) matching with regard to retroflexion and the same P&MoA, (2) matching with regard to retroflexion and with different P&MoA, (3) non-matching with regard to retroflexion and the same P&MoA, (4) non-matching with regard to retroflexion with different P&MoA. The results of the RDT confirmed that dissimilarity ratings were arranged according to the above hierarchy.

Further, we investigated the role of language status (L1 and L2) in affecting dissimilarity ratings within each condition. The RDT demonstrated that for L2 English matching retroflexion yielded lower similarity ratings than non-matching retroflexion in the

case of different P&MoA. Comparing matching retroflexion with non-matching retroflexion, we found that the perceived similarity of retroflexion is more prominent for L1 than for L2. The listeners were more sensitive to differences in Polish vs. English (2.08 vs. 1.53).

The findings from the discrimination task showed ceiling discrimination of /ʂ/-/s/ (96%), highly accurate scores for /t̪/-/t/ and /d̪/-/d/ pairs (both 87%) and 81% for /ŋ/-/n/. Below chance level discrimination was obtained for /ʎ/-/l/ (39%). The results can be accounted for by familiarity with L1 and L2 retroflexion patterns.

We hope to have shed novel light on the non-native speech perception from the multilingual acquisition perspective.

Keywords: crosslinguistic similarity, perception, discrimination, rated dissimilarity, Polish, Norwegian, English, retroflexes

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# **All the women are White, all the Black people are men, but some theories are brave: On the importance of Black feminist epistemology for the study of language**

Agata Janicka  
Adam Mickiewicz University, Poznań

*All the Women Are White, All the Blacks Are Men, but Some of Us Are Brave* – the title of this seminal collection on Black women’s studies, first published in 1982 (Hull et al. eds.), continues to reflect the obfuscated status of the lived experiences of African American women today, including their linguistic and interactional behaviour.

African American English (AAE) may have “commanded more attention on the American sociolinguistic scene than any other language variety in the United States” (Alim 2003: 50), but there seems to be a continued lack of sufficient insight into the ways African American *women* specifically communicate. In other words, the ways African American women communicate that are *different* from White women’s language *and* African American men’s language continue to be underrepresented in linguistic research (Troutman 2001). This is not at all because of the lack of distinctiveness and validity of African American women’s modes of communicating. African American women’s language (AAWL) as an emerging linguistic concept (e.g. Morgan 2015) states that there is a specific type of communication that occurs among Black women when they are in informal conversation exclusively among one another (Rahman 2015). An *alternative* theory for studying Black women’s discourses and everyday talk that has been emphasized as extremely valuable by various qualitative language and communication scholars (e.g. Bucholtz 1996; Houston and Davis 2002; Evans-Winters 2019) is Black feminist epistemology (Collins 2000). At its core, there are four dimensions: (1) lived experiences as criterion of meaning, (2) use of dialogue in assessing knowledge claims, (3) the ethics of caring, and (4) the ethics of personal responsibility. Importantly, it facilitates positioning one’s participants as authorities on their own language behavior and places their interactions in a specific social context thus allowing to read the particular features of their communication as analytically significant rather than incidental or negligible.

With this paper, I attempt to further contribute to underscoring and elevating the importance of Black feminist epistemology in the study of language by applying it as a central social theory in the critical sociolinguistic (Mullany 2007) analysis of the interactions occurring during an informal bonding event of a group of college-aged African American girls. During the one-hour recording session, the girls engaged in organized activities. At the same time, they engaged in everyday informal conversations. Preliminary analysis has shown that the girls employed some of the features described as characteristic of AAWL in their interactions: they smart-talked, they signified, they used culturally toned diminutives; they used bawdy language boldly and confidently, displayed self-assurance during the event, held each other accountable, negotiated self-definition. They discussed a variety of topics, such as

sex, contraception, and family. They voiced their opinions regarding their own language behavior as well as perceptions of that behavior (including that of the researcher).

Word count: 459

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## **Revisiting the Binary View of Honorifics in Politeness Research**

Daniel Z. Kadar ( Dalian University of Foreign Languages & Research Institute for Linguistics)

In the present paper, I revisit the popular assumption that languages like Japanese and Korean are ‘rich’ in honorifics, while others such as Chinese and European languages lack this ‘richness’. This binary view has long been present in politeness research, often coinciding with the assumption that politeness in languages with a complex honorific system is crucially different from politeness in languages with no comparably rich honorific repertoires. I propose a bottom–up, contrastive and corpus-based model through which we challenge this binary view. This model combines interaction ritual and speech acts. As a case study, I compare a set of expressions representing lexico-grammatical honorifics in Japanese and Chinese, i.e. in a so-called ‘honorific-rich’ and a ‘non-honorific-rich’ language. Our results show that the group of honorifics studied work in an essentially comparable fashion, hence disproving the above-outlined binary view.

# The neurophysiology of phonemic contrasts perception by multilingual listeners in diverse learning settings

*Hanna Kędzierska<sup>1</sup>, Karolina Rataj<sup>1</sup>, Anna Balas<sup>1</sup>, Zuzanna Cal<sup>1</sup>, Chloe Castle<sup>2</sup>, Magdalena Wrembel<sup>1</sup>*

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Non-native phonemic perception is considered a vital component of successful language learning and has become a focus of mounting scientific research. Several neurophysiological studies have documented reduced phonemic discrimination mechanisms in the second language (L2) when compared with the first language (L1) (Jakoby et al., 2011; Liang & Chen, 2022; Song & Iverson, 2018). In the current study we wished to contribute to an ongoing scientific debate on multiple foreign languages interacting in the mind of the same speaker. Specifically, we focused on the mismatch negativity (MMN) component which is assumed to reflect ease of phonemic discrimination (Näätänen et al., 1997). The research aimed at answering the following research questions:

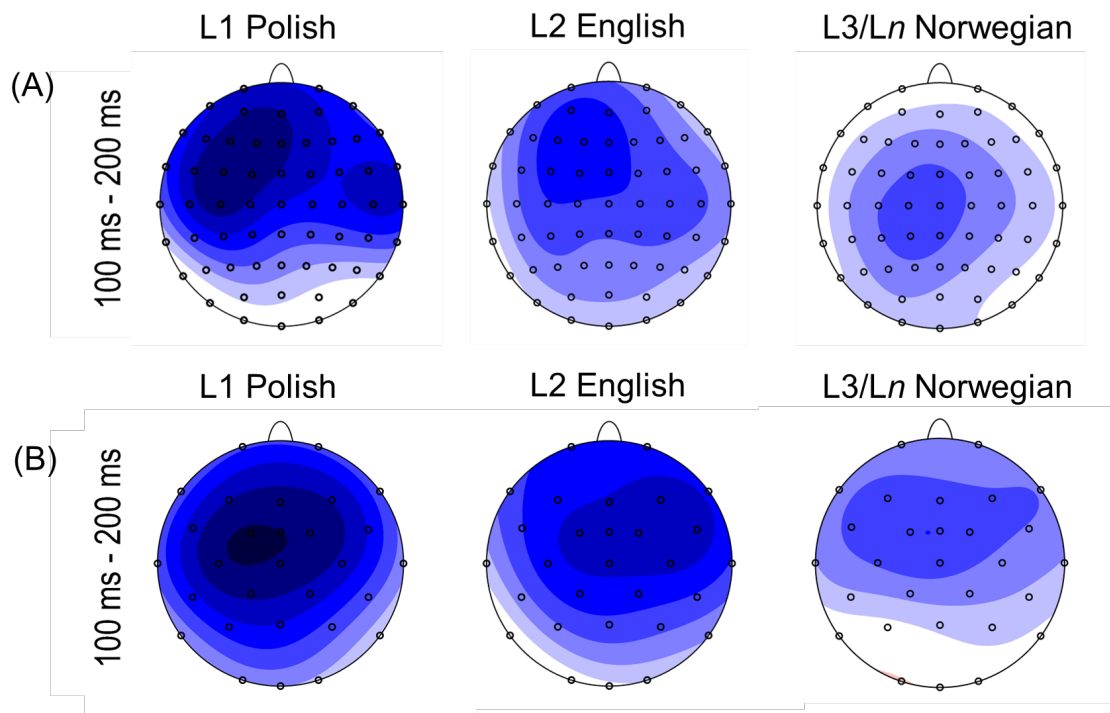
- (1) Will any significant differences in the terms of the MMN effect emerge in L3/*L<sub>n</sub>* as opposed to L1 and L2?
- (2) Will there be any significant differences between formal and naturalistic learners?

With respect to the first question, we predicted the MMN to be stronger in native when compared with non-native speech (Jakoby et al., 2011; Liang & Chen, 2022; Näätänen et al., 1997; Song & Iverson, 2018). The scale of the MMN effect in L2 when compared with L3/*L<sub>n</sub>* was, however, impossible to predict due to the lack of previous studies which would focus on such a comparison. With respect to the second question, we expected the MMN response to be enhanced in naturalistic when compared with instructed language learners (Peltola et al., 2003; Winkler et al., 1999).

We used event related brain potentials (ERPs) combined with the oddball paradigm to investigate vowel contrast perception among L1 Polish-L2 English-L3/*L<sub>n</sub>* Norwegian speakers. The following vowel contrasts were used for each language: /i/-/ɛ/ for Polish, /ɪ/-/ʊ/ for English and /i/-/y/ for Norwegian. Speech sounds were played via earphones while participants watched a silent movie. While 23 of them were students of Norwegian philology living in Poznań, Poland, 21 were Polish migrants living in Tromsø, Norway. In the former (i.e., instructed) group, statistically significant differences were observed for all three languages, with the strongest MMN effect in Polish, weaker in English, and weakest in Norwegian (see Figure 1). Contrastingly, in the latter (i.e., naturalistic) group, the experiment demonstrated no significant differences between Polish and English and a significantly weaker effect in Norwegian.

Overall, our study provides the first evidence that L2 or *L<sub>n</sub>* foreign language status modulates auditory language processing. Moreover, the results indicate significant differences between naturalistic and instructed language learners. This clearly suggests that the overall multilingual experience (affected by living in different settings) direct implications for speech perception mechanisms.





**Figure 1:** ERP effects elicited in instructed (A) and naturalistic (B) learners in three investigated languages

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# **Studying emergence and mastery in the development of morphonotactic and phonotactic word-initial and word-medial consonant clusters in Croatian first language acquisition**

Maja Kelić (University of Rijeka)\*; Ana Matic Škorić (Faculty of Education and Rehabilitation Sciences, University of Zagreb); Marijan Palmović (Faculty of Education and Rehabilitation Sciences, University of Zagreb); Wolfgang U. Dressler (University of Vienna)

**Introduction:** Dressler and Dziubalska-Kořaczyk (2006) introduced the theoretical distinction between morphonotactics and phonotactics. The interaction of morphonotactics with phonotactics affects the acquisition and processing of consonant clusters, as claimed by the Strong Morphonotactic Hypothesis (SMH). However, the research results are mixed, and this hypothesis might be restricted to the systems of rich morphology.

**Aims:** The aim of this talk is to present two studies focusing to development of morphonotactic and phonotactic word-initial and word-medial consonant clusters in Croatian first language acquisition: first Author & Author (2019) investigating word-initial consonant clusters and second, Author, Author & Author (2022) investigating word-medial consonant clusters. Both studies relied on principles of Natural Morphology, the Beats & Binding model of phonotactics and investigated the recent propositions of SMH.

**Methods:** In both studies the longitudinal corpora of three Croatian children (age period from 0;10 to 3;02) was analysed (Croatian Corpus of Child Language, Kovačević 2002). First, all word-initial consonant clusters (1st study) and word-medial consonant clusters (2nd study) were singled out and described as purely phonotactic, purely morphonotactic or both, with the age of emergence. Second, clusters were classified as preferable or non-preferable according to the Net Auditory Distance, in respect to their type and the age of appearance. In the first study, Author & Author in accordance with Berman (2004) introduced a new criterion for identifying the acquisition of a cluster within a longitudinal acquisition study: full mastery, which meant the time when either a morphonotactic consonant cluster or its homophonous phonotactic cluster are consistently produced correctly by the child. In the 2nd study, the clusters were analysed separately for the period before 20 MoA and after this important milestone (Gershkoff-Stowe 2002; Hoff and Naigles 2002; Storkel 2009).

**Outcomes:** Study of word-initial consonant clusters in Croatian using the new method showed that the three investigated Croatian children acquired morphonotactic clusters earlier than homophonous phonotactic clusters. Morphonotactic clusters were mastered before, even when homophonous phonotactic clusters emerged first. The study of word-medial clusters showed a clear pre-dominance of morphonotactic clusters in one out of three subcorpora. Developmentally, an increase in all three cluster types was observed and generally all clusters were predominantly less preferred. Early emerging phonotactic clusters appeared to be mostly preferred, while the first morphonotactic clusters comprised less preferred combinations, with a gradual increase in the preferability. Discussion and conclusion: The results of the 1st study indicate that the interplay between phonology and morphology aids mastering the consonant clusters, while the results of 2nd study partially corroborated the SMH, suggesting that further exploration of this hypothesis in different languages and using different approaches is needed.



## (Im)politeness and the study of literature: Ian McEwan's style in fiction

Urszula Kizelbach (Adam Mickiewicz University)

In their seminal publication *Politeness: Some Universals in Language Usage* (1987) Penelope Brown and Stephen Levinson proposed a strategy-based view of human communication, noting that there is a universal set of preferred types of linguistic behaviour (or strategies) which help interactants achieve their conversational goals and maintain social harmony. However, their “norm-based” view had its critics. The fact is that the Brown and Levinson politeness framework assumes that politeness is largely communicated through traditional polite linguistic forms and strategies, attributing a given linguistic form a fixed grammatical meaning, as in the case of speech acts. The critique is provided by Sperber and Wilson's ([1995] 2006) Relevance Theory which sees human communication from a wider perspective, as a result of the individual's cognitive processes rather than a reliance on set linguistic phrases reserved for specific situations. Still, Brown and Levinson's findings have been used in other approaches (Culpeper 2010) and they have been successfully combined with other research fields, such as stylistics and narratology (Fludernik 2009). The aim of this talk is to show the potential of (im)politeness both as a linguistic theory and as a powerful methodological tool for analysing fictional dialogue. Based on the example of Ian McEwan's novel *Nutshell*, I will demonstrate how (im)politeness serves not only as a means of characterisation in fiction (intradiegetic level) but also how it can describe the communication between the implied author and reader (extradiegetic level).

Keywords: Politeness, Impoliteness, Narratology, Literary characterisation, Extradiegetic communication

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## **Human and machine translation of occasionalisms in literary texts: Johann Nestroy's *Der Talisman* and its English translations**

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Elisa Mattiello, University of Pisa

Writers coin new words to introduce new ideas and concepts in many fields of science and technology; in literature, new words, i.e., occasionalisms (Chanpira 1966; Dressler & Tumfart 2017) can be used as a stylistic device and contribute to the very literariness of a text. For translators, they often pose a particular challenge. Given the recent advances in machine translation (MT), human-machine interaction is no longer restricted to the translation of non-literary texts (Rothwell et al. forthcoming) and the question arises whether MT could potentially assist literary translators when it comes to the translation of new words.

In our presentation, we will look at the work of Austria's most important 19<sup>th</sup>-century comedy writer, Johann Nepomuk Nestroy (1801-1862), whose fame also rests on his creative use of occasionalisms. Nestroy made ample use of occasionalisms for character portrayal, satirical and humorous effects and the stimulation of metalinguistic reflection. Our focus will be on one of his most-staged plays, *The Talisman* (1840). It has been translated into English three times so far; what has sparked our interest is the fact that all three English translations contain very few newly created words, the translators having mostly opted for non-occasionalistic, normalizing translation strategies, thus depriving the target text of some of its extraordinary effects (Kenny 2001).

We will compare the human translations of occasionalisms (compounds, derivations, and blends) in *The Talisman* with the translations produced by two widely used generic neural machine translation systems (Google Translate and DeepL), with the MT renderings of occasionalisms taken from the engines' translations of the complete play. We will explore the following questions: Which translation strategies did the MT engines use? Are there particular types of occasionalisms that have been translated more successfully by the engines than others? Are there significant differences in the performance of the two systems? Evaluating the MT output from a functional perspective, we will appraise its potential utility in an interactive human-machine scenario to determine whether any of the machine-generated versions are viable solutions or at least interesting enough options to be considered by translators, given the poetic and/or humorous function of the original occasionalism and what we assume to have been Nestroy's intention.

Our main result is that compared with the human translations, the MT systems generated more occasionalisms, all of them through literal translation procedures. The most successfully translated type were compounds, and indeed some of those MT solutions convey more of the humor, satire, and linguistic and philosophical wit contained in the original than normalizing versions used by human translators. MT could therefore well serve as a kind of repository from which literary translators could draw inspiration.

**Keywords:** Machine translation; human-machine interaction; literary translation; occasionalisms, Nestroy

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# Understanding the Landscape of Phonological Research Using Corpus Linguistics Methods: A Scoping Review

Alona Kononenko-Szoszkiewicz (Adam Mickiewicz University)

Keywords: scoping review, corpus linguistics, phonology, phonotactics, morphonotactics.

Corpus linguistic methods prove to be an invaluable tool in the study of sound systems since they involve large collections of written, spoken, or transcribed language, also serving as a source of data for phonological analysis. The corpus-based approach is one of the ways to study phonotactic and morphonotactic patterns of languages, as shown by Zygorowicz et al. (2016). To explore what is the actual scope of research that applies cross-linguistic methods for the investigation of phonetic and phonological phenomena, the author conducted a scoping review of 1552 publications from the Scopus database from the years 2010-2020. The following research questions were formulated:

1. Which types of corpora are predominately used in corpus linguistics?
2. Which languages are dominant in corpus linguistic studies?
3. What are the most common domains of linguistics that utilize corpus linguistics methods of research?

The application of bibliometric analysis allowed me to gain insight into the development of a field over time and determine emerging trends and areas of linguistic research that may be ripe for further exploration. Scoping review methodology has been applied to bibliometric analyses since it allows for identifying knowledge gaps, defining the scope of a body of literature, and investigating research conduct (Munn et al. 2018).

In response to the first research question, findings indicate that written types of corpora are the primary focus in corpus linguistic studies. Out of a total of 1552 publications that utilized language corpora for research purposes, 860 (55.4%) were based on written corpora, 575 (37.0%) on spoken corpora, 96 (6.2%) studies utilized both spoken and written corpora and only 21 (1.4%) studies used corpora of sign language.

The second research question referred to the languages that are primarily the subject of investigation in corpus linguistics. As expected, the English language emerges as the predominant focus, given that the largest existing language corpora are COCA (Davies, 2008) and BNC (comprising 100 million words). According to the data, 212 languages were the subject of corpus linguistic research.

The analysis revealed that there are four major domains of linguistics that utilize corpus linguistic research methods. The strongest cluster is related to academic discourse, followed by speech recognition and natural language processing, language development, and speech analysis. As the data shows, while the investigation of phonotactics may not be overtly articulated in the keywords of scholarly articles, the exploration of speech and sounds is fundamentally ingrained within the domain of corpus linguistics. Although the availability of various language corpora enabled to examine (mor)phonotactic patterns of the languages not merely descriptively but also quantitatively, there were no mentions of morphonotactics which is probably due to the limitations of Scopus.

Word count:439 References:

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## Lexical and genre effects on the metaphorical conceptualization of SHAME in American English: A corpus-based investigation

Karolina Krawczak, Adam Mickiewicz University in Poznan

**Introduction & research questions:** This study presents a usage-based investigation of the figurative conceptualization of SHAME in American English. More specifically, it has two objectives, one methodological and the other descriptive. Methodologically, it seeks to combine qualitative corpus data analysis with multivariate modeling, thus advancing quantitative figurative language research (cf. Reijnierse *et al.* 2019; Glynn & Nordmark 2013; Ogarkova & Soriano 2018). The descriptions thus produced are not only empirically verifiable, but also generalizable, being representative of the sociolinguistic context under analysis. Descriptively, the aim is to map the metaphorical structure of the concept under examination, and while doing so identify possible genre and lexical effects in conceptual metaphor profiling. In other words, the question to be addressed here is whether different genres and different lexical exponents of the same concept are associated with different conceptual metaphors. The hypothesis is that variation in conceptual metaphor distribution across genres and lexemes will be observed. With regard to genre variation, fiction and magazines are expected to show greater abundance and heterogeneity in this respect than the section of spoken language.

**Method, data & results:** The concept of SHAME is operationalized through its two nominal instantiations, i.e., *shame* and *embarrassment*. The data were collected from three sections of the Corpus of Contemporary American English, i.e., fiction, magazine, and spoken. Data extraction involved manual search in a sample of 500 examples per genre and per lexeme of all the instances of metaphorical uses for the two lexical exponents of SHAME. This procedure was inspired by the Metaphorical Pattern Analysis put forward by Stefanowitsch (2004). The data thus obtained were annotated for four variables: <Key word>, <Genre>, <Source domain>, <Emotion cause>. Following that, the metadata were submitted to multivariate modeling. The results provide further empirical evidence for the existence of the conceptual metaphors already proposed for SHAME in prior research (e.g., Kövecses 1986; Tissari 2006; Fabiszak & Hebda 2007). However, their distribution across genres and lexemes was found to be uneven. This may demonstrate that conceptual metaphor profiling does manifest sensitivity to contextual variables such as genre and that near-synonymous lexemes display some variation in the source domains with which they are associated.

**Keywords:** metaphor, emotion, shame, corpus data, qualitative and quantitative analysis

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## The quality of word-medial consonantal clusters as predictors of lexical access of compounds – evidence from an auditory lexical decision task

Agnieszka Lijewska (Adam Mickiewicz University); Katarzyna Dziubalska-Kołaczyk (Adam Mickiewicz University); Paulina Zygorowicz (Adam Mickiewicz University); Michał Jankowski (Adam Mickiewicz University)

Lexical frequency effects in word recognition are considered a reliable index of how compounds are accessed (Amenta & Crepaldi, 2012) – either via their constituents – *door* and *bell* (Taft, 2004) or as a whole word (Giraudo & Grainger, 2001) *doorbell* or via both these processes occurring in parallel (Baayen & Schreuder, 2000). If compounds are initially decomposed, behavioral data (e.g. response times, RTs) will be modulated by the frequency of individual morphemes. However, if compounds are recognized via full form, no morpheme frequency effects are expected. Past research has suggested that the nature of compounds' lexical access might be modulated by phonological qualities of consonantal clusters across morpheme boundaries, as specified by the Net Auditory Distance (NAD) (Author, 2014). The rationale is the following. Generally, clusters resulting from morphological operations (Dressler & Author 2007) are expected to be phonologically marked (dispreferred according to Net Auditory Distance, cf. Author, 2014) to saliently signal a morphological function. Compounds (if lexicalized) no longer need such signaling. We predict that compounds with unmarked (“non-signaling”) clusters are lexicalized (cf. Authors et al., 2015) and, consequently, accessed via their full form. In contrast, compounds with marked (“signaling”) clusters are not lexicalized so they are accessed via their constituents. Authors et al. (2016) tested advanced learners of English as L2 in a (visual) lexical decision task and found that L2 learners appear to be sensitive to the qualities of word-medial clusters in compounds. Learners' RTs to compounds with *preferred* word-medial clusters (according to NAD) were statistically significantly modulated by full form frequency but not by morpheme frequency. Whereas compounds with *dispreferred* clusters (according to NAD) showed no full form frequency effects but marginally significant morpheme frequency effects. However, it is unclear to what extent the participants of that study activated the phonological representations of the stimuli during a visual task. Consequently, the present paper is a replication of that research with a group of Polish speakers of English as L2 in the auditory lexical decision task. The participants were presented with 220 items but as auditory stimuli (Tucker et al. 2019) and asked to decide if these constitute English words or not. The results of the study did not bring the confirmation of the role of NAD in lexical access in the auditory modality. The observed frequency patterns will be discussed in the context of models of compound processing.

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## **L3 dialect use as marker of social mobility: Case of Polish migrant communities living in Tromsø**

Kamil Malarski (Adam Mickiewicz University)\*; Chloe M Castle (UiT The Arctic University of Norway); Isabel Nadine Jensen (UiT The Arctic University of Norway); Helene Jensberg (UiT The Arctic University of Norway)

Dialect acquisition in a foreign language is not often discussed in publications on L2/Ln acquisition, possibly due to the expectation that a language learner will acquire a standard variety of a target language. Investigating the use of an additional dialect or dialect features in both one's first and second languages is, however, vitally important for understanding both how language is influenced by the social environment, and how social factors can map onto language use. So far, it has been mostly shown that first-generation migrants do not fully engage in the pragmatics of dialect use and, rather, their language use is often governed by idiolectal features (Labov 2014). The problem of the standard vs. the dialect is even more complex in the discussion on L2/Ln Norwegian, especially from the sociolinguistic perspective.

The acquisition of sociolinguistic variation has been described for L1, L2 and later languages, however. Indeed, sociolinguistic variation is acquired relatively early in language development in children (Labov 1964, Labov 2013), along with dialect perception in the L1 and understanding the social norms this variation communicates (Okumura et al. 2014). Whilst research into L2 D2 (Language 2, dialect 2) is sparse, it does exist. Drummond (2013) investigated L2 D2 acquisition of the Manchester dialect in terms of the STRUT vowel, finding that length of residence, having a native speaker partner, and attitudes towards Manchester affect the degree of vowel change to the local variant. Gnevsheva et al (2022) show that L2 speakers of English are more likely to shift their American English dialects to Australian English than L1 speakers of American English, finding that length of residence and positive attitudes towards Australia predicted greater selection of Australian words.

We are investigating dialect production and dialect perception in L3 Norwegian, as spoken by speakers born in Poland, residing in Norway for a longer period of time, and speaking Norwegian to an advanced level of proficiency. We map the rates of dialect use with socio-cultural factors such as having Norwegian friends in their inner circles, sense of belonging within the Norwegian society, profession, level of Norwegian proficiency of their partner's etc. Participants engaged in several tasks, including reading tasks, unscripted speech, wordlist reading, translation tasks, an acceptability judgement task, and an extended demographic questionnaire. Based on the literature, we predict that at least the length of residency and attitudes toward Norway will have an effect on dialect use. We also predict that participants will use dialect more in unscripted speech, and that use will be more frequent for more salient features (e.g., phonological and lexical features).

The initial results, based on 30 participants recorded in Tromsø, show several clear-cut patterns, namely: 1) frequent dialect users all speak Norwegian to a very proficient, native-like level, 2) speakers with many Norwegian friends and Norwegian partners use the dialect more frequently, 3) the dialect is used much more in unscripted speech, as opposed to reading tasks, wordlist reading tasks and translation tasks. These findings suggest that the higher use of the dialect, or the vernacular, in one's foreign language may be an index of how much the speakers engage in social interactions with L1 speakers, but also that Ln speakers may be

sensitive to style-shifting and the contextual use of the standard and the dialect similarly to L1 users of the language.

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## **The issue of conceptual equivalence in the discourse of translation**

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The hypothesis in the paper is that conceptual equivalence as one of the key types of equivalence between the source and the target texts can be achieved not only based on translation strategies in the elements of figurative language such as metaphor (Trim 2007), but also based on translation strategies in the elements of literal language. Both translation strategies can offer the translator rich information on the linguistic choices of the author of the source text and how the translator considers these choices depending on cognitive perspectives of all participants of the discourse of translation. In this connection, the paper aims to revisit this topic by exploring the role of various elements of literal and figurative language in the process of reconceptualization of the source text into the target text as cycles of reconceptualization based on the theory introduced by Lewandowska-Tomaszczyk (2010, 2020). For this purpose, *The Old Man and the Sea* and *For Whom the Bell Tolls* written by Ernest Hemingway and their translation in the Azerbaijani language have been selected for contrastive analysis and discourse analysis.

Thus, reconceptualization plays a crucial role in the overall success of the discourse of translation. The translator's task is to use all available linguistic tools provided by the target language to make the process of reconceptualization as effective as possible. The ultimate goal is to achieve conceptual equivalence between the source and the target texts, which is one of the most appropriate alternatives to other types of equivalence to make translation successful.

The results of the study suggest that the elements of literal and figurative language help the translator to determine the effectiveness of translation by offering rich information on the ways how conceptualization happened in the source text and how he/she can add his/her own preferences in the target text for reconceptualization opening the road to subjectivity in the discourse of translation. On the other hand, certain objective factors such as social, cultural and purely linguistic can impose

some restrictions on the choices the translator makes based on his/her subjective attitudes.

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Key words: conceptual equivalence; concept; conceptual metaphor; elements of literal language; elements of figurative language



## **Problems in Dictionary Didactics. How to Solve Them: The Georgian Case**

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The scientific study of dictionary use began back in the 1960s. This included both quantitative and qualitative research on dictionaries and dictionary use. Numerous studies (Laufer, Hadar 1997; Atkins 1998; Bejoint 2010, Rundell 1999, etc.) conducted in different countries by outstanding lexicographers revealed many problems in dictionary didactics, namely they strongly indicated poor dictionary use skills in learners both at schools and universities. Many studies showed that without proper prior training and lexicographic education, students tend to use various types of dictionaries erroneously and inefficaciously. Such an unprofessional and amateurish approach to dictionary use results in inadequate and insufficiently proficient command of foreign languages. Language competence in such cases becomes shallow and superficial. Another negative consequence of such a situation is the inability of such students to correctly communicate their thoughts, poor vocabulary, and the failure to associate foreign words and concepts with their proper counterparts from their native language or languages.

“One of the major problems in any society and even more so in a multilingual society, is the lack of an established and comprehensive dictionary culture”, stated Rufus Gouws in his keynote speech at the XX International Congress of EURALEX in Mannheim. His emphasis on the lack of the dictionary culture and the responsibilities that not only lexicography has towards society but society also has towards lexicography is an important statement that is relevant for many societies, including Georgian society.

“It is genuinely puzzling how methods which explicitly condemn the use of the native language in the classroom, effectively banning bilingual dictionaries, could ever have been considered beneficial in the teaching and learning of foreign languages”, wrote Arleta Adamska-Sałaciak (2014) in her article “Bilingual Lexicography: Translation Dictionaries”.

“Research on dictionary use has significantly changed the lexicographic practice and made dictionaries more user-friendly. Unfortunately, the same cannot be said for the field of dictionary didactics concerned with the education of users. No extensive teaching of dictionary use is provided in schools and universities; this is especially the case in the Hungarian context”. This excerpt is from the article of the Hungarian scholars, Katalin P. Marcus et al, published in the *International Journal of Lexicography* in 2023.

Educators are well aware of this problem, and as a result, many countries have incorporated the use of dictionaries into their curricula.

In my presentation, I will describe our efforts as lexicographers to bring back the dictionary culture in our society and make society feel the responsibility towards our field.

**Keywords:** dictionary use; dictionary culture; dictionary didactics; dictionary use skills.

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# **The Acquisition Of Lithuanian Morphotactics: The Study Of Typically Developing Children And Children With Developmental Language Disorder**

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The aim of the present study is to test the Strong Morphotactic Hypothesis (SMH), according to which speakers use morphotactic consonant clusters as morphological boundary signals (Korecky- Kröll et al. 2014). It is hypothesized that morphotactic clusters will be better retained during production than phonotactic clusters due to the function fulfilled by a morpheme.

Research into the morphotactics of the Lithuanian language was started in 2006 during the traineeship of the author at the University of Vienna and in cooperation with prof. W. U. Dressler (supervisor of “The Crosslinguistic Project on Pre- and Protomorphology in Language Acquisition”). The analysis of the corpus of a Lithuanian child (1;8-2;8) and a pilot experimental study of a small sample (3;0-7;0) revealed that morphotactic clusters are acquired by children earlier than phonotactic clusters (Kamandulytė 2006, Kamandulytė-Merfeldienė 2015). In addition, the results obtained allowed to formulate an unexpected hypothesis that the production of morphotactic clusters is more complicated in children with DLD (developmental language disorder) than in typically developing (TD) children. Thus, the aim of this paper is to investigate the production of morphotactic (occurring across morpheme boundaries, e.g. žais-ti [play-INF]) and phonotactic (occurring within morphemes, e.g. vaist- as [medicine-NOM.SG]) consonant clusters in TD children and children with DLD and to test the hypothesis that TD children produce morphotactic consonant clusters more easily than phonotactic clusters.

The study is based on experimental data collected from 80 TD Lithuanian children (4;5-6;5) and 80 Lithuanian children with DLD (4;5-6;5). Children with DLD (without other developmental disorders) were identified by a speech language therapist at the Pedagogical Psychological Service.

The research is based on the results of the repetition task that consisted of 32 sentences with target word with a consonant cluster in the middle of each sentence. The repetition task included the following consonant clusters that can occur both within morphemes and across morpheme boundaries: št, mt, ks, ls, nk, sk, kt, and st.

This study explores the impact of morphology on the acquisition of phonotactics. The findings suggest that TD children process morphotactic clusters more accurately than phonotactic clusters because morphotactic clusters have the function of co-signalling the existence of a morphological rule. In contrast to TD children, for children with DLD prototypical morphotactic clusters are the most difficult as the morphology acquisition in these children is particularly delayed and they are not sensitive to morphological information which is carried by morphotactic clusters.

## **Accommodation theory and (socio)linguistics**

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Communication accommodation theory has shown remarkable staying power, but largely in fields outside of linguistics. To what can we attribute this? I suggest the enduring appeal of accommodation is because: (i) accommodation has been long recognised by researchers and skilled practitioners of language; (ii) accommodation theory is well-suited to experimental methods. But ‘cultural’ factors also play a role in its trajectory in different fields. I argue that accommodation researchers in social psychology have adopted a syncretic approach to changes in the theory’s focus and methods, building on and not rejecting previous stages of CAT; this differs from theoretical developments in sociolinguistics. I also suggest that the different goals associated with research in the social psychology of language and sociolinguistics may account for why CAT has had more lasting impact in fields other than sociolinguistics, despite the paradox of accommodation remaining fundamental to accounts of language variation and change.

# Discourse and register: Spatio-temporal systems in Chaucer's language

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The purpose of this paper is to conduct a systematic discourse-pragmatic analysis of the spatio-temporal systems in Chaucer's language along the lines of historical pragmatics and discourse analysis (Taavitsainen & Jucker 2015). The text used in the present study is taken from the Riverside edition (Benson 1987), consisting of some tales from *The Canterbury tales* (fiction) and *A treatise on the astrolabe* (handbook) to compare different registers.

Language speakers exploit spatio-temporal systems by which they judge how distant the situations they wish to express are from their domain, that is, proximal (close) or distal (distant) (Nakayasu 2018). Such relationships are embodied by spatio-temporal elements such as pronouns, demonstratives, adverbs, tense forms and modals. These elements may be related to each other to take either a proximal or distal perspective not only in either the spatial or the temporal domain, but also in the integrated spatio-temporal domain. Speakers can then continue to take the same perspective, or alternate different perspectives, in discourse. However, few studies have attempted a systematic analysis of such perspective changes in discourse, particularly in historical data.

On the basis of a statistical analysis of the spatio-temporal elements, the present paper will carry out a qualitative analysis to address the following questions: 1) How does the perspective change as the discourse progresses? 2) What factors are relevant to this change in discourse? and 3) How do these changes and factors vary depending on registers? To provide answers to these questions, this paper will analyse those elements and factors which have an impact on the perspective choice in discourse: 1) elements structuring discourse (e.g. metadiscourse), 2) elements promoting a proximal or a distal perspective (e.g. address terms), 3) elements triggering alternations of these perspectives (e.g. discourse markers), and 4) factors facilitating alternations of elements in either the spatial, the temporal, or the integrated spatio-temporal domain (e.g. contrast between two worlds).

The analysis reveals some noteworthy variances between registers. Both proximal and distal perspectives are equally taken in *The Canterbury tales* (fiction), while proximal perspectives are more likely to be taken in *A treatise on the astrolabe* (handbook). In the former, the narrators employ a wide variety of elements in discourse, and the perspective shifts to and from proximal and distal more dramatically. By contrast, in the latter, its scientific nature tends to maintain the same perspective, and those elements which trigger alternation are less likely to occur.

In conclusion, this research shows how Chaucer deployed his spatio-temporal systems in discourse, and expands our understanding of the unfolding dynamics of communication with further explorations.

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# ***The agreeable man is the one who agrees.* Formulae and Rules for Disagreement in a Late Modern Multilanguage Etiquette Corpus**

**Annick Paternoster**

**Keywords:** historical pragmatics, contrastive pragmatics, politeness, etiquette, formula

House *et al.* (2023) and Taavitsainen & Włodarczyk (2021) have started to explore the interface between historical and contrastive (or cross-cultural) pragmatics from a politeness angle. These are promising attempts to map linguistic expressions that are conventionalised for politeness across different linguacultures. However, efforts to ‘crossfertilise’ historical and contrastive pragmatics are rare and this abstract contributes to filling this knowledge gap.

Contrastive pragmatics aims to capture contrasts and similarities across different languages and works with linguistic units of analysis that are of a manageable size. This proposal is a pilot study exploring a new contrastive method by extracting politeness formulae from a prescriptive metadiscourse of historical etiquette books. These are unique data as they sit across the dividing line between politeness usage and politeness mention (Jucker 2020: 20): these are metapragmatic mentions of routinised usages, which occur in a prescriptive metadiscourse. The sources themselves authoritatively evaluate the formulae as polite.

Building on Paternoster & Saltamacchia (2017), who harvested politeness formulae and rules in a monolingual corpus of nineteenth-century conduct books, this synchronic proposal works with etiquette sources from four different languages: UK and US English, Dutch, French and Italian. Although these languages are relatively ‘close’, they belong to different families, of Germanic and Romance languages. It uses a self-built corpus of etiquette books from the long nineteenth century (1800-1920), totaling 92 books and comprising 4,800,000 words. The corpus, available from Sketch Engine <https://app.sketchengine.eu/>, consists of public-domain texts drawn down from digital libraries. Most sources include a dedicated chapter to ‘conversation’, where these formulae routinely occur. I use close reading of these chapters to produce a list of lexical items (including metapragmatic verbs, e.g. *to differ*) and phrases, which is then used to search the entire corpus for rules and formulae that may occur in different chapters.

Rules are a prescriptive metapragmatic opinion, and often they contain politeness and impoliteness formulae: Don’t say X but say Y: “In company, when a gentleman states his opinion, and it does not happen to coincide with your own, differ from him in a gentle way: do not say, ‘Sir, you are quite wrong,’ ‘I happen to know, the case is different,’ &c. but you may say, ‘pardon me, I think there is some little mistake,’ ‘I have heard a different version of that affair,’ &c.” (Lady de S\*\*\* 1837)

While impoliteness formulae consist of pointed criticism, politeness formulae include apologies, disclaimers, consultative devices, whilst main verbs are lexical hedges, with the conditional mood or modal adverbs, beside evidentials. Rules will be analysed within a discussion of the context ‘conversation’: sources stress its leisurely and mainly phatic role, a pastime amongst equals during visits, where there is no room for conflict.

This proposal explores a method that uses a prescriptive politeness metadiscourse to mine routinised expressions of the past. As historical corpora get ever bigger, these lists of linguistic forms can be used as a starting point to access various pragmatic functions. **(488 words)**

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## **Possible and Probable Errors in Child Language**

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This talk proposes a novel account of children's "Blind Alley Developments" (BADs), drawing on the complementary strengths of the Tolerance Principle and Natural Morphology. Particular attention is given to morphological "weak BADs," which occur when children overextend and wrongly apply a pattern present in their input. I show that the Tolerance Principle, as a vocabulary-driven, learning-theoretic measure, can explain both how certain weak BADs reach temporary productivity in the child's grammar and how children proceed to escape them and progress towards an adult-like grammar. At the same time, the preferences and preference conflicts of Natural Morphology provide constraints on the types of BADs we expect to observe. In combination, these approaches provide a unique vantage point into what errors are possible, and which are likely, throughout the course of child language acquisition.



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### **Equivalence variation in English-Polish medical translation: A study of hyphenated terminological compounds with *-like***

Achieving interlingual equivalence is never easy, especially in specialized translation. Topic-specific terminology in most fields tends to be cognitively and semantically complex thus adding to the already difficult task of precise transferring of specialized meaning.

This presentation is a preliminary report on a study concerning English-Polish translation of phrases containing similitudinal *-like* adjectives. For the purpose of the analysis about 1000 such units have been extracted from four English medical textbooks along with their Polish equivalents found in published Polish translations. Combinations such as *Parkinson-like symptoms*, *migraine-like headaches*, *hepatitis-like clinical events* or *lymphoma-like proliferation* could be classified as strictly terminological phrases since the nouns comprising the similitudinal *-like* adjectives and the head nouns are medical terms. However, units such as *doll-like faces*, *doughnut-like densities*, *shawl-like distribution*, *button-like ulcer* or *sponge-like appearance* are hybrids of commonplace (i.e., non-specialized) words used in the adjectival part and (usually) terminologically-oriented head nouns. The phrases incorporating the similitudinal *-like* are semantically compositional and are used in medical texts to enhance the understanding of various properties of medical concepts (e.g., shape, size, color, origin).

One of the key features of specialized translation is terminological consistency. However, in the case of the similitudinal *-like* adjectives, the Polish equivalents display a certain level of variation (at the grammatical, morphological and lexical levels). Depending on the context and collocates, the Polish translations included combinations featuring the suffixal *-podobny* as in *alergicznopodobny*, prefixal *rzekomo-* as in *rzekomogrypowy*, or *pseudo-* as in *pseudozapalne*, the phrase *podobny do X*, or *przypominający X, typu X*. An attempt has been made to categorize the phrases with similitudinal *-like* adjectives in medical texts in order to identify lexical, structural and collocational patterns that would be helpful in achieving more consistent terminological equivalence.

Tadeusz Piotrowski (1), Francis Bond (2), Marek Maziarz (3), Ewa Rudnicka (3)

Wrocław University (1), Olomouc University (2), Wrocław University of Technology (3)

### Theory and dictionaries: models of polysemy.

It is unclear whether dictionaries reflect theories of lexical semantics, it is unclear whether they should reflect those theories. They are supposed to reflect properties of languages, even if – or because - they are not founded on any clear theoretical foundation. In our study we considered whether two popular dictionaries of English, the American Webster Collegiate and the British New Dictionary have a clear structure of their polysemous entries, and we used computational methods to find that out. We selected a sample of entries from both dictionaries, and five polysemy theories were formalized as algorithms linking word senses into polysemy networks, taking into account semantic similarity of dictionary definitions calculated with the use of a deep neural network language model.

# **Does sonority dispersion principle manifest within-language probabilistic phonotactic distribution?**

Peiman Pishyardehkordi (University of Canterbury)

The worlds' languages contain a variety of cross-linguistic phonotactic patterns, in which certain sound sequences are more likely to occur in a language than others (Kenstowicz, 1994). Are these patterns also reflected as probability distributions within individual languages? We investigate this question in the context of sonority constraints on syllable formation.

Cross-linguistic patterns in syllable structure have been argued to be governed by sonority hierarchies (Clements, 1990, 1992). Sonority hierarchies are loosely based on the comparative loudness of speech sounds. Sonority dispersion principle argues that "... the simplest syllable is one with the maximal and most evenly-distributed rise in sonority at the beginning, and the minimal drop in sonority at the end. Syllables are increasingly complex to the extent that they depart from this preferred profile.". Simpler syllables are more cross-linguistically common than complex syllables. For example, plosive + vowel syllables are more cross-linguistically common than glide + vowel syllables (Clements, 1990).

We also know that in addition to categorical constraints on their phonology, languages also contain probabilistic phonotactic patterns within the sequences that they allow (Frisch et al., 2004; Pierrehumbert, 2001). Amongst their legal phonological sequences, some sequences tend to be over-represented, and some sequences under-represented. Native speakers of languages can rate the wellformedness of non-words, closely tracking the probabilities of the sequences they contain (Bailey & Hahn 2001; Frisch et al. 2000). These gradient phonotactic patterns are thus an important part of linguistic knowledge.

If cross-linguistic patterns are also reflected as within-language probabilistic constraints, we can hypothesize that in languages that allow both simple and complex syllables, the simplest syllables will be the most frequent. Following the above example, in languages that allow for both plosive + vowel and glide + vowel syllable, plosive + vowel syllables will be more frequent than glide + vowel syllables.

To test this hypothesis, I have used databases of phonemically transcribed lemmas with syllable boundaries to obtain the probabilistic distributions of bigrams in 4 positions of #[CV], [VC]#, #[CC]V and V[CC]# within syllables in 8 languages: English, German, Dutch, te reo Maori, Italian, Portuguese, French and Greek. Linear regression models have been performed to test any correlation between sonority dispersion complexity ranks and probabilistic distribution of individual bigrams.

Preliminary results show that a significant correlation exists between the sonority complexity rank and bigram frequency (less complex is correlated with more frequent) for most of the positions within syllables for all the 8 languages. These findings suggest that sonority dispersion principle as a cross-linguistic universal also manifests within-language probabilistic distributions of segment sequences within syllables of the mentioned languages.

Abstract word count: 426 words.

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## **Processing of literary metaphors in English as a foreign language – an eye tracking study**

*Monika Płużyczka, University of Warsaw*

Experimental research on the processing of literary metaphors in a foreign language (L2) is scarce, as well as research on how non-native speakers perceive the aesthetic value of such metaphors. Therefore, it is essential to gain a deeper insight into the topic.

Theoretical background: There is no scholarly consensus on whether comprehending metaphors in a foreign language requires additional cognitive effort and a longer time to process. While some researchers consider that we process them slower due to the non-literal meaning (Columbus 2015), others believe that we process them faster due to the stimulation of imagination and emotions (Ifantidou, Hatzidaki 2019). There is also no consensus on how we process them. There are two research perspectives: 1) a three-stage model where the non-native speaker first considers the literal meaning (1 step), then assess plausibility based on the context (2), and at the end reject the literal interpretation and create new metaphoric meaning (Clark and Lucy, 1975; Grice, 1975; Searle, 1979 etc.); 2) a universal pattern of metaphor comprehension where the metaphor is processed directly - regardless of whether it is the user's native language or a foreign language (e.g., Gibbs, 1984, 1987, 1994, 2001; Blank, 1988; Way, 1991; Cacciari and Glucksberg, 1994; Goldvarg and Glucksberg, 1998). Little empirical research supporting either approach exists.

The team experiment was conducted in 2022 at the University of Warsaw. The methodology consisted of both online (eye tracking) and offline (comprehension tests, appreciation ratings) methods. We formulated the following research questions: a) How do we process literary metaphors in L2? b) Is their processing cognitively demanding? c) How well people understand literary metaphors in foreign language? d) How do we evaluate their aesthetic value? The participants were Polish EFL students (English level = B2 and higher) who were given an excerpt from “The Picture of Dorian Gray” by Oscar Wilde. The experimental group read the original text with metaphors, and the control group an adapted text where metaphors were rewritten in plain language.

Results: 1) Non-native readers process metaphors significantly slower than they do non-metaphorical expressions (which is why we favour a three-stage model of metaphor processing in L2). 2) All eye tracking parameters (dwell time, fixation count, fixation duration, revisits) were much higher for metaphors, indicating increased cognitive load. 3) Non-native readers rate the aesthetic value of metaphors in L2 higher than they do the corresponding non-metaphorical expressions. Interestingly, we found a correlation: the more difficult the metaphor was for the respondents, the higher they rated it aesthetically.

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### **Lexical variation and OED3**

This paper reports on a research project that seeks to explore how lexical variation has been described in the third edition of the OED (henceforth, OED3), and whether it is likely to be improved with corpus data. *Dance*-compounds were taken as a test case. The study reveals that variant forms in OED3 are given either explicitly, implicitly, or are not given at all. The first category may be exemplified by *pillow dance* = *cushion dance*, but not the other way round; the second treats *strip dancer* (1946) and *strip girl* (1961) as semantically unrelated items; and the third fails to consider *calumet dance* (1717) as an earlier variant of *pipe dance* (1778). *Witch dance* (1824) and *death dance* (1766) are among the compounds acknowledged to have operated alongside two types of genitive variant, *witches' dance* (?) and *Dance of Death* (c. 1430) respectively, both of which express largely the same meaning. A handful of OED3 headwords, together with the genitive patterns, were, therefore, searched in the Google Books corpus to examine the rate of lexical variation. The results of the research, which will be discussed in some detail, are quite promising, suggesting that discoveries remain to be made within the lexicon of English in general, and OED3 in particular.

## Reading in AVT contexts: an eye-tracking investigation of cognate and non-cognate processing

Cognates are words that have the same meaning whilst also sharing a high degree of formal similarity (i.e. orthographic overlap) between two languages (e.g. *literature*<sub>EN</sub> - *literatura*<sub>PL</sub>). When two languages refer to a concept by using exactly the same word (i.e. orthographic identity) these words are referred to as identical cognates (e.g. *chaos* in English and Polish).

The SLA literature attests to a *cognate facilitation effect* when isolated L2 words are read by bilinguals, consisting of faster reaction and processing times for cognates relative to non-cognates. Facilitation effects in lexical decision tasks are sometimes found for non-identical cognates (Dijkstra et al. 2010) but for the most part research shows facilitation for identical cognates (e.g. Libben and Titone 2009). Facilitation is reduced as orthographic overlap decreases (Comesaña et al. 2015) or disappears for non-identical cognates (e.g. in Duyck et al. 2007). Moreover, the cognate facilitation effect is not always present when reading cognates in sentences, especially in high-constraining contexts (for an overview, see Lijewska, 2020).

Overall, few studies have investigated cognate processing via eye tracking above the single-word level (e.g., Balling, 2013; Duyck et al., 2007; Van Assche et al., 2013) and, to our knowledge, no study to date has explicitly investigated cognateness via eye tracking when processing subtitled video. Very few eye-tracking studies examined the learning of non-cognates via subtitle reading (Montero Perez et al., 2015; Wang and Pellicer-Sánchez, 2022), but cognates remain largely unaddressed in audiovisual contexts.

Our study compares cognates and non-cognate processing by re-examining data from an eye-tracking experiment where participants watched BBC documentary excerpts with English subtitles whilst being monitored by an EyeLink 1000 Plus eye tracker. Two subtitle speeds are considered: 12 and 20 cps (characters per second). We analysed both early (gaze durations, skipping rates) and late (total times, fixation counts) eye-tracking measures, and examined whether any differences occurred between identical and non-identical cognates. We also checked whether cognate effects could be found in bilingual (n=42) viewers (Polish natives with advanced L2 English skills) as compared to monolingual English speakers (n=51).

Because authentic video was used, all targets (20 cognates and 20 non-cognates) appeared as part of the subtitles (i.e., in their sentence context). All targets were controlled for part of speech, length, corpus frequency, number of occurrences, subtitle position, and the presence of a referent in the image. Cognates and non-cognates were also matched for all the above variables.

(Generalized) linear mixed-effect models were used to analyse the eye-tracking data. We assessed whether the cognate facilitation effect remains or disappears in subtitle reading, and whether it is affected by subtitle speed, nativeness (monolinguals vs. English-Polish bilinguals) and the degree of English-Polish orthographic overlap. In this talk, we will present details of the methodology and key results of the analyses. Given the popularity and ubiquity of video in the modern world – most of which now comes with subtitles – our study contributes to understanding reading mechanisms in multimodal sentence processing and assessing the potential usefulness of subtitled video for L2 learning.

(496 words without title and bibliography)

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**Keywords:** eye tracking, cognates, word processing, subtitling, multimodal reading



# The Reverse Relationship between Modularity and Popularity: Domain-General Mechanisms on the Rise

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**Keywords:** modularity, domain-general processes, domain-specific processes, Emergentism, phonology.

In recent years, large-scale domain-specific modules (e.g. phonology and syntax) have become less popular, and instead, domain-general explanations are taking over. In the phonological literature, Emergentist approaches (e.g. Samuels, 2011; Archangeli and Pulleyblank, 2022) have abandoned phonological domain-specificity in favor of more general processes. Regarding syntax, aside from the Emergentist approaches that eliminate the syntactic module altogether (e.g. O’Grady, 2010), recent discussions suggest that even in Essentialist accounts such as the Chomskyan FLN, syntax does not seem to be a domain-specific module anymore (see Scholz et al., 2022). The move toward less modularity is not new in the history of linguistics: Halle’s argument (Halle, 1959) against the “biuniqueness” of American Structuralism (combining the separate phonemic and morphophonemic levels into a single level) and the Minimalist elimination of the internal syntactic modules of the Government and Binding theory are two examples of that.

I suggest that the growing popularity of less modularity can be explained on three grounds: 1) everything else being equal, a less modular account of cognitive phenomena has methodological superiority over a more modular account (see Boeckx and Hornstein, 2010) – a point which can be considered as an example of parsimony (aka Occam's razor); 2) breaking down large-scale modules and adhering to more general processes can facilitate the dialog between linguistics and other fields of cognitive science: in this regard (especially the conversation between linguists and neurobiologists), Poeppel (2005) discerns two problems – namely the “Granularity Mismatch Problem” and the “Ontological Incommensurability Problem” – and suggests a path to a computational research program that involves decomposing large-scale modules and working with formal general processes; 3) postulating a domain-specific module for a certain cognitive trait can make harder its evolutionary explanation (see Boeckx, 2021).

Overall, it can be predicted that modularity (or at least large-scale modularity) will completely fall out of favor in cognitive science.

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## **Does cross-linguistic similarity play a role in reading? A self-paced reading study with Polish-English-Norwegian multilinguals**

Anna Skalba (Adam Mickiewicz University in Poznań); Sylwiusz Żychliński (Adam Mickiewicz University in Poznań); Magdalena Wrembel (Adam Mickiewicz University)

Although research into multilingualism and third language (L3) acquisition has recently attracted much attention, the area still seems relatively under-researched, especially in terms of cognitive processes underlying L3 sentence comprehension (e.g., de Bot 2004; Jarvis and Pavlenko 2008; Sokolova and Slabakova 2019). Therefore, we conducted a self-paced reading study with L1 Polish – L2 English – L3 Norwegian multilinguals, addressing the role of cross-linguistic similarity in the processing of correct and incorrect sentences in L3. We investigated this factor using four types of constructions: prepositional verbs and adjectives, reflexive verbs, articles, and gender agreement, controlling for potential sources of cross-linguistic influence from L1 and/or L2. Specifically, while the former two constructions are present in all three languages, the latter two exist in two out of the three languages. Within each construction, we manipulated the level of cross-linguistic similarity and grammatical correctness. This design can be illustrated as follows:

1. 1a. Prepositional verbs and adjectives: NO = EN = PL (same preposition in all three languages)
2. 1b. Prepositional verbs and adjectives: NO = EN ≠ PL (same preposition in NO & EN, different in PL)
  
1. 2a. Reflexive verbs: NO = PL = EN (same verbs reflexive in all three languages)
2. 2b. Reflexive verbs: NO = PL ≠ EN (same verbs reflexive in NO & PL, non-reflexive in EN)
  
1. 3a. Gender agreement: NO = PL (agreement marked on adjectives, nouns neuter in NO & PL)
2. 3b. Gender agreement: NO ≠ PL (agreement marked on adjectives, nouns neuter in NO, masculine or feminine in PL)
  
1. 4a. Articles: NO = EN (indefinite articles, free morphemes in NO & EN)
2. 4b. Articles: NO ≠ EN (definite articles, suffixes in NO, free morphemes in EN)

We presented our participants (N = 34) with 192 Norwegian sentences, which were displayed word- by-word on the computer screen. Having read one word of a sentence, they had to press the space bar to see the next word, which replaced the previous one. Each sentence was followed by a binary acceptability judgement question, evaluating their metalinguistic knowledge and ensuring they paid attention during reading. The L3 self-paced reading task was followed by an acceptability judgement questionnaire in English, verifying participants' knowledge of L2 English on the constructions under investigation (except for gender agreement, absent in English).

We will analyse the data using a linear mixed-effects model, with reaction times (RTs) at the key word (the word deciding about the grammatical correctness of the selected constructions,

marked in bold in the examples below) as the outcome variable, and grammaticality and cross-linguistic similarity as fixed effects. We hypothesise that, within each construction, key words in sentences belonging to conditions a above will yield shorter RTs than sentences from conditions b, both for correct and incorrect sentences. Additionally, we will test a control group of Norwegian native speakers, which will allow us to refine our conclusions regarding the role of Polish in cross-linguistic influence. We hope to inform further the debate on cognitive processes underlying L3 sentence comprehension.

**Keywords:** cross-linguistic influence, multilingualism, self-paced reading

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## Examples of sentences for the investigated constructions (with their English and/or Polish

### translations):

1. 1a. Prepositional verbs and adjectives: NO = EN = PL  
NO: Direktøren deres betalte for / \*om **blyanter** og papir. EN: Their director paid for / \*about pencils and paper. PL: Ich dyrektor zapłacił za / \*o ołówki i papier.
2. 1b. Prepositional verbs and adjectives: NO = EN ≠ PL  
NO: Disse rommene er nok for / \*på **konferanser** og møter.  
EN: These rooms are enough for / \*on conferences and meetings.  
PL: Te pomieszczenia są wystarczające \*dla / na konferencje i spotkania.
1. 2a. Reflexive verbs: NO = PL = EN  
NO: Den unge gutten skadet seg / \*Ø **kraftig** i fingeren. EN: The little boy hurt **himself** / \*Ø badly in the finger. PL: Mały chłopiec mocno skaleczył się / \*Ø w palec.
2. 2b. Reflexive verbs: NO = PL ≠ EN  
NO: Mange feriegjester solte seg / \*Ø **på** stranden.  
EN: Many holidaymakers sunbathed **\*themselves** / Ø on the beach. PL: Wielu wczasowiczów opalało się / \*Ø na plaży.
1. 3a. Gender agreement: NO = PL  
NO: Dette dyret er **sultent** / **\*sulten** om vinteren. PL: To zwierzę jest **głodne** / **\*głodny** w zimie.
2. 3b. Gender agreement: NO ≠ PL (agreement marked on adjectives, nouns neuter in NO, masculine or feminine in PL)  
NO: Dette kjøleskapet er **tomt** / **\*tom** hele tiden.  
PL: Ta lodówka jest cały czas \*puste / pusta.

1. 4a. Articles: NO = EN

NO: Denne filmen er en / \*Ø **tegnofilm** om to prinsesser.

EN: This film is a / \*Ø cartoon about two princesses.

2. 4b. Articles: NO ≠ EN

NO: Denne parken er **skogen** / \*skog hun jogget i.

EN: This park is the / \*Ø forest in which she was jogging.

## The salience of morphonotactic consonant clusters during sublexical and lexical processing: findings from Croatian

Ana Matić Škorić (Faculty of Education and Rehabilitation Sciences, University of Zagreb); Eva Pavlinušić Vilus (Laboratory for Language, Cognition and Neuroscience, Faculty of Maritime Studies, University of Rijeka); Maja Kelić (University of Rijeka)\*; Marijan Palmović (Faculty of Education and Rehabilitation Sciences, University of Zagreb)

**Introduction:** The term *mophonotactics* refers to the interface or an interaction between phonotactics and morphotactics (Dressler & Dziubalska-Kořaczyk, 2006). The distinction between phonotactic clusters occurring within a morpheme and morphonotactic ones which emerge across morpheme boundaries bears important theoretical and psycholinguistic implications given the important information these clusters carry. Studying consonant clusters relies on the principles of Beats-and-Binding (B&B) phonotactics (Dziubalska-Kořaczyk, 2002) and Strong Morphonotactic Hypothesis (SMH; Dressler & Dziubalska-Kořaczyk, 2006). The latter account claims that consonant clusters that occur over morpheme boundaries are more salient than the phonotactic clusters and that the effect of synergy between morphology and phonology will manifest itself in acquisition and processing. According to SMH, morphonotactic consonant clusters are acquired earlier and processed more accurately and more rapidly than the corresponding phonotactic clusters. Claims have been made that this applies to morphologically rich languages, such as Croatian.

**Aims:** The aim of the study is to investigate whether the morphonotactic clusters are processed faster and more accurately at the level of sublexical and lexical processing. Considering the SMH and previous findings on acquisition, we hypothesise that this is the case.

**Methods:** 71 native speakers of Croatian participated in the study. Two experiments were conducted to test sublexical and lexical levels of processing: auditory sequence targeting experiment (AST) and lexical decision task (LDT), respectively. In the AST, participants had to indicate whether the visually presented cluster appeared in the word they had previously heard, and in the LDT they had to decide whether the string of letters presented on the screen is or is not a real Croatian word. Clusters within the stimuli were controlled for type (phonotactic vs. morphonotactic) and preferability (preferable vs. non-preferable; calculated using NAD). In the second experiment we manipulated lexicality (word vs. pseudoword), as well. To test the influence of these factors on performance (reaction time and accuracy) a repeated measures ANOVA was conducted.

**Outcomes:** The results of reaction times in the first experiment (AST) indicate a significant main effect of *preferability* [ $F(1,70) = 59.515$ ;  $p < .001$ ] and an interaction between *cluster type*  $\times$  *preferability* [ $F(1,56) = 38.894$ ;  $p < .001$ ]. Preferable clusters were processed faster. The results of the second experiment (LDT) show a main effect of *lexicality* [ $F(1,70) = 120.451$ ;  $p < .001$ ], *cluster type* [ $F(1,70) = 21.685$ ;  $p < .001$ ], *preferability* [ $F(1,70) = 6.231$ ;  $p < .015$ ], and an interaction between *lexicality*  $\times$  *cluster type* [ $F(1,70) = 25.054$ ;  $p < .001$ ]. Words with preferable morphonotactic clusters were processed faster. Accuracy reached ceiling performance in both experiments.

***Discussion and conclusion:*** The results indicate that the interplay between phonology and morphology indeed aids processing, especially on the higher, lexical level. According to the SMH, the reason lies the saliency and significant information that these clusters carry in a morphologically rich system. Current findings have strong implications for theory and are to be investigated further in populations with and without language disorders.

**Keywords:** morphonotactics, strong morphonotactic hypothesis, sublexical processing, lexical processing, Croatian language

# Reading between the lines: eye-tracking evidence for concurrent reading and translation in a sight translation task

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Research has reported conflicting results suggesting either serial (Huang, 2011) or concurrent reading and translation (McDonald & Carpenter 1981; Ruiz et al. 2008; Ruiz & Macizo 2019) during a sight translation task. Research on reading patterns of professional and trainee interpreters has pointed towards the serial account but only indirectly (Lijewska, Chmiel & Inhoff, 2022). Therefore, the question still remains open whether reading during sight translation is similar to regular reading or else whether it already incorporates lexical access to translation equivalents, in line with the language non-selective access hypothesis known from psycholinguistic studies on bilingualism. To address this question, the present study directly compared eye movements recorded during regular reading and sight translation. In order to investigate task differences and to gauge the nature of lexical access during task performance, the present study employed the word frequency effect (i.e. dissimilar reading patterns for targets varying in frequency) (Clifton et al. 2016) and the cognate facilitation effect, i.e. shorter reading durations for words sharing form and meaning across languages (cognates) relative to language-unique control words (Dijkstra et al. 2010). Prior research has shown that differences across tasks can surface as modulations of the frequency effect in eye movement data (Kaakinen and Hyönä 2010; Schotter et al. 2014). In turn, the cognate facilitation effect has been typically taken as evidence for language non-selectivity in lexical access during task performance (Libben and Titone 2009; Dijkstra et al. 2015).

This study is based on Macizo & Bajo (2006), but it replaced a self-paced reading paradigm with eye-tracking. We recruited 23 conference interpreting students in the first or second year of their MA with Italian as an A language and English as a B or C language. Our participants were presented with two separate tasks: (1) reading comprehension of English sentences and (2) sight translation of English sentences into Italian. Materials included 160 nouns (80 English-Italian cognates and 80 non-cognates in pairs matched for word characteristics) embedded in 80 low-context sentences. Each sentence contained two sets of critical targets: either English-Italian cognates or English-only controls. We also used frequency as a continuous measure potentially modulating reading patterns. Preliminary data analysis shows a consistent task effect across both early and late reading measures, suggesting that reading and sight translation differ. This provides evidence for concurrent reading and translation during a sight translation task, which likely underlies the observed task effect. The difference between reading and sight translation is further corroborated with a cognate effect recorded in sight translation but not in reading. Contrary to our predictions, frequency effects remained similar in both tasks, possibly indicating that the frequency effect should not be used to distinguish reading patterns across the two tested tasks.

**Word count: 447**

**Keywords: sight translation, silent reading, eye-tracking, cognate effect, frequency effect**

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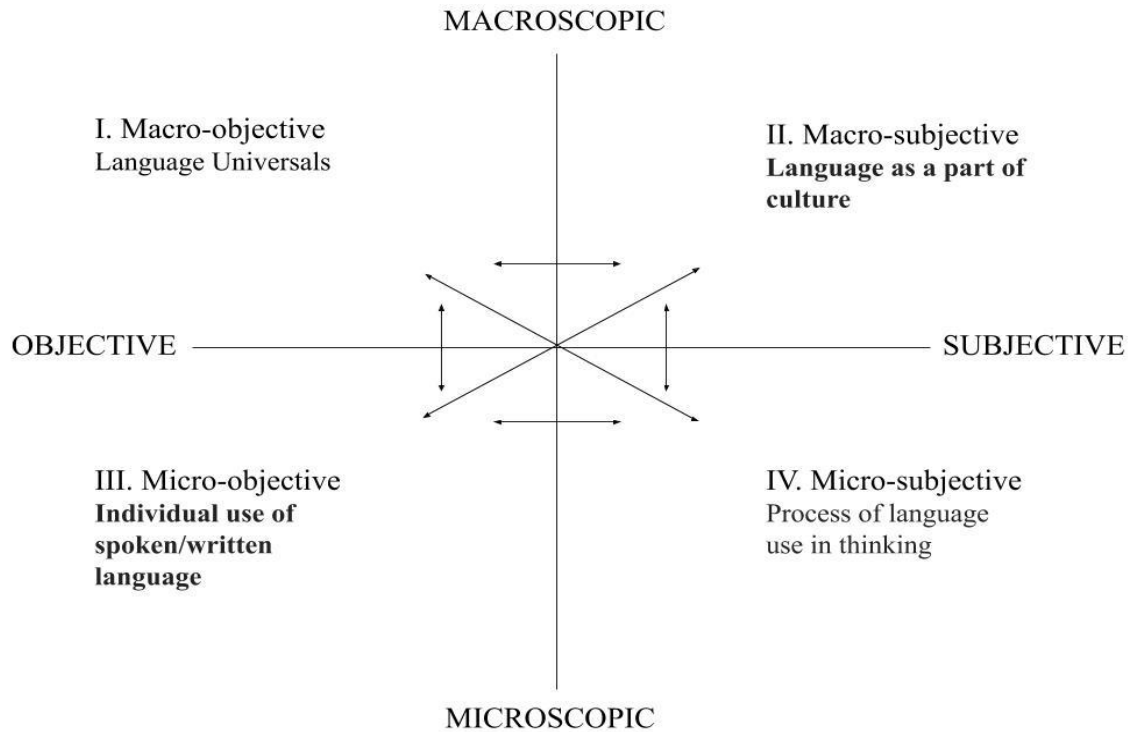


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This work adopts an inter-disciplinary approach that is of interest not only to generative linguists, sociolinguists, cognitive linguists and language typologists, but also to general readers concerned with the issues of gender and evaluation. The study investigates data from nine languages, a number of which are critically endangered.

(3) Integrated Sociological Paradigm applied to the study of language



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## The periphery of the P demotion domain: The Indo-Aryan (IA) languages in a typological perspective

Krzysztof Stroński (Adam Mickiewicz University)\*; Katarzyna Maria Janic (Adam Mickiewicz University); Mohammad Tavakoli (Adam Mickiewicz University)

This study aims to explore a class of alternations that preserve the argument structure of a verb but modify its morphosyntactic structure through the syntactic demotion of the P (object) argument. We will investigate factors responsible for the linguistic diversity of P demotion clauses across languages, with particular attention to IA languages, based on their formal and functional characteristics. This will allow us to estimate to what extent the P demotion of IA is unique in its behavior and properties when compared to other languages.

The P demotion operation involves a change of P coding properties such as indexation and flagging. The 'P demotion' class may include but is not limited to antipassive (1), conative, transitivity discord, noun stripping, and object incorporation. In ergative languages, they involve a change of A (subject) flagging from ergative to absolutive, the presence of a voice marker, and the P demotion to a peripheral (OBL) status.

(1) a. ʔaaček-a kimitʔ-ən ne-nlʔetet-ən  
youth-ERG load-ABS 3PL.SBJ-carry-AOR.3SG.OBJ 'The young men carried away the load.'

b. ʔaacek-ət ine-nlʔetet-gʔe-t kimitʔ-e  
youth-ABS ANTIP-carry-AOR.3SG.SBJ-PL load-INS  
'The young men carried away a load.' (Kozinsky et al. 1988: 652)

(Chukchi)

Some scholars assume that P demotion to OBL is sufficient to consider a construction as in (2b) antipassive (Kozinsky et al. 1988: 654). However, as (2) shows, the verb systematically requires ERG flagging of the subject. In (2a), P is unflagged and agrees with the verb. In (2b), it receives DAT/ACC flagging and the agreement is blocked (for exceptions in agreement blocking cf. author 2010).

(2) a. rām ne ciṭṭī likhī  
R.M. ERG letter.F.SG write.PAST.F.SG 'Ram wrote a letter.'

b. rām ne laṛkī ko dekhā  
R.M. ERG girl.F.SG DAT/ACC see.PAST.M.SG 'Ram saw the girl.'

(Hindi)

Ex. (2b) shows a widespread phenomenon in IA languages, traditionally analyzed under the umbrella term of DOM (Montaut 2018). Conversely, such alternations are discussed as semi-transitive from a functional-typological perspective (Zúñiga & Kittilä 2019: 208).

IA also has verb-coded P demotion alternations. But unlike many languages, they do not contain a synthetic voice marker, (cf. 1b). Instead, they have analytical voice-marking. They use vector verbs that parallel functionally to synthetic voice-marking. This type of construction has at least two features that make them possible to be analyzed as (pseudo)antipasives: change of A flagging ERG> NOM(or ABS) and change of verb valency signaled by the intransitive vector, e.g. 'go' in (3b). Moreover, a verbal agreement is with P in (3a), and with A in (3b).

(3) a. rām ne khānā khāyā (Hindi) R.M ERG food eat.PAST.M.SG

'Ram ate food/meal.'

b. rām khānā khā gayā

R.M food eat go.PAST.M.SG 'Ram ate up meal.'

In (3b), however, P does not have demotion features as it remains unflagged. Flagging is possible if P is animate or definite but then it has the same flagging as in a transitive construction.

So far, we have inspected 25 languages. The preliminary results show that either P is demoted to oblique or ultimately demoted through verb incorporation or omission. Interestingly, the type of P demoting alternation, where valency-changing operation is indicated by an analytical voice-marking is observed only in one language: Cavineña (Pano-Tacanan).

We will conduct our research on approximately 50 genealogically unrelated languages. The collected will be analyzed within the multivariate typology by Bickel (2010). Each P demotion construction will be thus decomposed into formal and functional variables, focusing on the P objecthood properties in particular. This will allow detecting potential correlations and patterns, and skewings from the prevalent patterns. Moreover, we will inspect IA historical corpora (Jaworski 2015) to capture how typologically rare pattern has occurred.

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Word count (excluding references, title and examples): 500 words

# Preschool children's irony comprehension and the impact of the family environment on its quality

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My PhD research capitalizes on preschool children's irony comprehension. In general, children appear to have difficulties with the comprehension of irony. There are many open questions about the development of irony understanding, including the steps, cognitive background and central mechanisms of the process.

My small-scale pilot-study aimed to assess the impact of parents' attitudes towards irony on the quality of children's irony comprehension. Regarding the participants, the full sample included 19 families from Hungary, which meant 20 children (fraternal twins in one case), 19 mothers and 19 fathers. The children's mean age was 4 yrs 6 months. All the participants were monolingual, Hungarian-speaking.

The instruments employed in the experiment were devised based on the ones used in the studies by Banasik (2020) and Schnell (2021). The tests were performed in the children's homes. While the parents were completing an Attitude Toward Irony self-report questionnaire measuring their attitude towards irony, the experimenter conducted an Irony Comprehension Test with the child.

The Irony Comprehension Test included 8 stories within a day of a preschool child named Máté. Four stories ended with an ironic and four with a non-ironic statement uttered by an adult. The stories were recited to the children by the experimenter together with virtual stimuli (2 drawings specifically designed for this experiment) presented on a tablet. Following each story, two follow-up questions about the final (ironic/non-ironic in a random order) utterance had to be answered by the children. They had to guess what the speaker meant by the utterance, i.e. they were expected to realize that in the case of the ironic utterances the intended meaning was the opposite.

The Attitude Toward Irony self-report questionnaire completed by the parents involved 11 questions. The first four questions each presented the same situations as the stories ending with an ironic comment in the children's questionnaire, and were aimed at finding out if the parents would make such comments. The rest of the questions was designed to learn the following about the parents: whether they liked using irony at home, how often they did it, what they used it for, if they considered irony a good thing, as well as gathering their assumptions on their child: concerning their level of irony comprehension, if they understood what it was used for, how often they used it.

Data showed that the age factor affected preschool children's irony interpretation. The findings reinforced Banasik (2013)'s results, namely, with age, children became more proficient in irony comprehension and even 4-year-old children understood irony. In line with previous research (see Banasik- Jemielniak et al., 2020), the results indicated moderate positive associations between children's levels of irony comprehension and the levels of mothers' irony use.

Keywords: preschool, children, irony, comprehension, parental

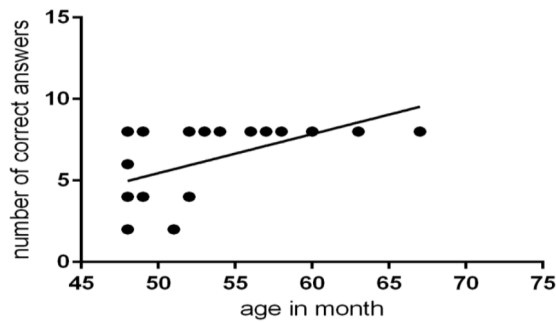
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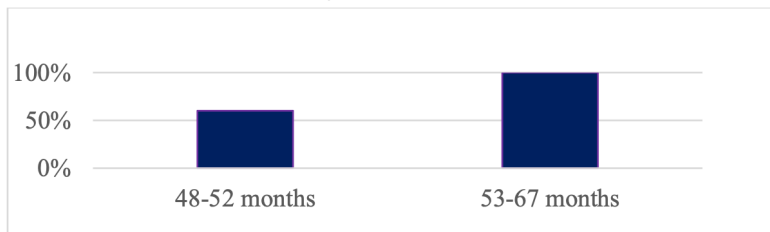
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**Results: influence of age**

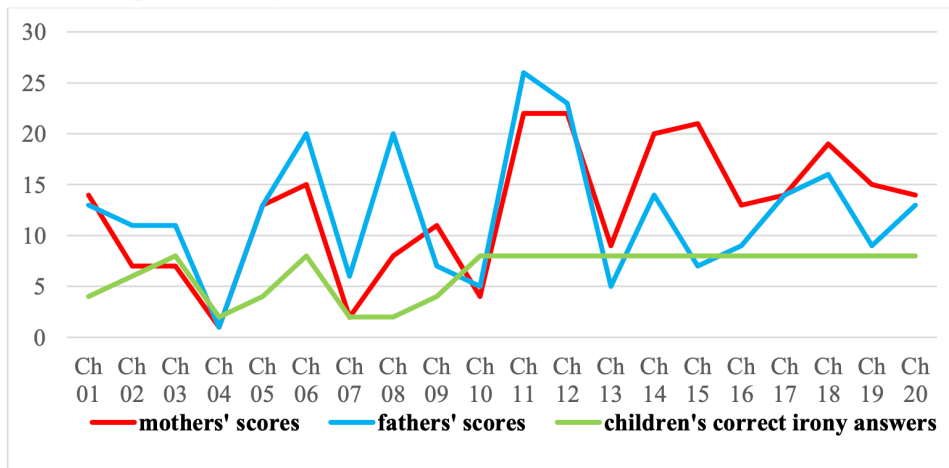


moderate positive correlation bw. children's age and their correct irony answers  
 (Pearson:  $r = .544$ ,  $p < .05$ )

**Results: children's accuracy in ICT**



**Results: impact of family**



moderate positive correlation bw. mothers' ATI scores - children's correct irony answers  
 (Pearson:  $r = .5818$ ,  $p < .05$ )



## **Eyetracking Multilinguistic Landscapes**

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*Keywords: multilingualism, minority languages, eyetracking, reception, reading*

Many regions in the world are multilingual. Val Badia, for example, is a region in South Tyrol with three official languages: Italian, German and Ladin. The inhabitants of Val Badia speak, read, and listen to the three mentioned official languages daily with Ladin being a minority language belonging to the Rhaeto-Romance languages. Linguistic landscapes in Val Badia, such as traffic signs or other information, are presented in all three languages, making the regional multilingualism visible. The question arises, however, to what degree all languages are read and processed, and whether language processing depends on specific influential factors.

In this study, eyetracking was used on 23 trilingual participants fluent in Italian, German, and Ladin, to shed light on their reading behaviour when faced with signs containing text presented simultaneously in the three languages but in randomized orders (left to right and top to bottom). The focus is on the results concerning questions of reading strategies measured with fixation durations and transitions between the text instances. This allows us to find out whether one language is preferred over another when it is displayed in a randomized order and whether this preference is linked to the communicative situation or participants' language skills irrespective of the position of the language stimulus.

The stimuli included 18 photos of authentic trilingual traffic or informative signs containing varying amounts of text in all three languages. The stimuli were randomized and presented in six orders, so each photo was manipulated to create six text versions of the photos. Additionally, 19 distractors (images without text) were included. In a self-paced eyetracking experiment, participants then were randomly presented with 37 stimuli alternating a distractor and photo in one of the six versions. After each stimulus/distractor participants were asked to describe what they had seen in their language of choice. The eye movements are recorded and quantified for each text instance in the three languages and the respective position. The eyetracking data are triangulated with a speech production task as well as socio-demographic data and a self-assessment of language skills. Initial results suggest that the language in first position (left and top) receives the most initial attention, irrespective of the language. Overall, however, the minority language Ladin, seems to receive the most attention compared to Italian and German, irrespective of the position in which it is presented. Apart from that transitions were calculated and a control group with no knowledge of Ladin was also tested. The results will be reported in detail in our presentation. Furthermore, the discussion of the results also covers the linguistic situation in the area under investigation and the language politics involved. The trilingual nature of this study and the presentation of authentic stimuli with varying amounts of text is not without challenges to the methodological design which will also be critically discussed in the presentation.

(469 words)



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## **Conceptual Metaphor and Metonymy in Rabindranath Tagore's *Gītāñjali*: Cultural and Linguistic Equivalence in the Process of Transcreation.**

keywords: conceptual, metaphor, metonymy, equivalence, transcreation

The proposed doctoral project results from the awareness of a huge gap in the field of Tagore studies related to linguistic research on the self-transcreation of his poetry. The project was inspired by the research works of S. Dasgupta and M. Ray, who highlight Tagore's role in pioneering an open discussion in India on the process of translating poetry, in which the poet addressed many aspects of creative translation long before they found their place in theoretical studies. The authors confront Tagore's observations with current translation theories and relate the notion of dynamic equivalence to his concept of creative self-translation of poetry.

The main goal of the above doctoral research is to evaluate the level of linguistic and cultural equivalence in Rabindranath Tagore's English version of *Gītāñjali*, which is the poet's transcreation of his Bengali poems. With Conceptual Metaphor Theory as a research methodology, conceptual domains and cultural experiences, from which particular conceptual metaphors and metonymies derive, will be reconstructed. The transcreation process in terms of decoding metaphorical images from the original language and re-encoding them into the target language will be analyzed on the basis of dynamic equivalence. Additionally, with Conceptual Blending Theory as a complementary methodology, the process of conceptual integration of different philosophical and metaphorical concepts will be recreated to understand the schemes that the poet followed in transcreation, achieving equivalent messages and evoking equivalent sentiments.

The preliminary objective of the equivalence evaluation is to identify and distinguish universal or near-universal metaphorical concepts from culture-specific ones, and then to analyze and compare their conceptual context in the source and target texts. LIFE IS A JOURNEY is an example of a universal conceptual metaphor that constitutes the core of intratextual interpretation and builds a thread intertextually connecting all *Gītāñjali* poems. It creates a network of complex conceptual interrelations that constitute a semantic context for culture-specific concepts such as *līlā* (play), *viraha* (separation) or *māyā* (illusion). These metaphorically expressed concepts were decoded from the Bengali metaphorical images through a process of transcreation by the poet, and then re-encoded into metaphors and metaphorical expressions recognizable in English language culture, such as HIDE-AND-SEEK or LOVE IS A JOURNEY. The process of transcreation was thus based on transformation, re-evaluation and reconstruction of the source conceptual context in a foreign culture. It was also shaped by the blending of concepts from different philosophical systems, such as Hinduism, Buddhism or Christianity, within a source text as well as between the source and the target text.

Owing to the application of CMT and CBT, the above doctoral project allows for a comprehensive cognitive analysis of the transcreation process of Tagore's Bengali poems into English in the context of cultural and linguistic equivalence, and thus a new reading of conceptual interrelations in *Gītāñjali*.

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## Conceptual Metaphor Theory and Blending Theory in the Cultural Equivalence Evaluation of Rabindranath Tagore's Transcreation of *Gītāñjali* into *Song Offerings*.

Keywords: conceptual metaphor, blending, transcreation, equivalence

Transcreation is one of the most challenging fields of translation studies, requiring complex and exhaustive tools for the evaluation of the achieved level of equivalence in terms of emotionality, aesthetics and message of the target text. The fundamental question of transcreation research endeavors to resolve the problem of the borderline between the concept of a creatively translated text and a new version of the original idea. To assess transcreation, the components of its conceptual structure must be dissected and examined under scrutiny. In this process, the relationship between language and culture must be reconstructed and the whole organism of the text must be semantically diagnosed in terms of its component functions.

Conceptual Metaphor Theory (Lakoff and Johnson 1982) and Conceptual Blending Theory (Fauconnier and Turner 2002) are complementary methods that offer a comprehensive analysis of cultural equivalence in the self-transcreation of Rabindranath Tagore's Bengali poems, *Gītāñjali* into English *Song Offerings*. With CMT, it is possible to reconstruct the conceptual interrelations of the source text that motivated the metaphorical schemes of the English version. The BT framework is essential when conceptual deconstruction is necessary to understand the thought process behind transcreation. Two crucial questions arise regarding the methodologies: How does CBT complement CMT in the analysis of the transcreation process when mappings between domains do not exhaust the semantic field of poetry? What are the preconditions for the application of CBT to ensure a reliable result in transcreation equivalence assessment?

To illustrate the complementary roles of CMT and CBT in the analysis of the transcreation process, the example of Bengali *yāōyā āsā* (going-coming) and hide-and-see, its English equivalent in the target text, can be given. *Yāōyā āsā* builds a complex semantic context integrating conceptual metaphors such as LOVE IS A JOURNEY and LIFE IS A GAME to convey the concepts of *viraha* (separation) and *māyā* (illusion). The conceptual context of the source text is projected onto the hide-and-see game to create a culture-specific amalgam, in which the *yāōyā āsā* conceptual context is integrated into the game rules of the target text's metaphor. The metaphorical concept of hide-and-see acquires conceptual context of a journey, a love relationship, the cycle of life, *saṃsāra*, *viraha* (separation) and consequently *māyā* (illusion), thus, creating a complex blend.

The above example reveals how cultural discrepancies were overcome in a process in which the conceptual context of the source text was integrated with a conventional metaphor to create a culture-specific blend in the target text. Both CMT and CBT can be successfully applied to a detailed and holistic examination of the transcreation process of Tagore's Bengali poems into English, provided that metaphorical mappings and conceptual integration networks are organized intertextually, thus considering the conceptual context of the analyzed poem against the background of the whole chain of semantic relations within the entire poetical collection of *Gītāñjali*.

## Generic Noun Phrases in the Third Language

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Anne Dahl (NTNU)

**Introduction.** In this study, we examine the effect of input and previous language knowledge on the acquisition of genericity in L3 Norwegian of Polish native speakers who also speak English. Generic meanings generalize over kinds, expressing a certain amount of regularity (Carlson & Pelletier, 1995); characterizing generics generalize over the prototypical representative of the class (e.g., *Bananas are yellow*) and contrast with episodic sentences. Previous studies have shown that the acquisition of genericity is prone to cross-linguistic effects in the L2 (Ionin, Montrul, Kim, et al., 2011; Snape, 2013; Snape et al., 2013) and in the L3 (Ionin, Montrul, & Santos, 2011; Ionin et al., 2015).

**Rationale.** We focus on the form to meaning mapping of plural forms. Norwegian and English are compatible: the bare plural (*bananas/bananer*) yields a characterizing reading referring to all/the majority of bananas while the definite plural (*the bananas/bananene*) is appropriate for the episodic reading referring to specific bananas (2,3). Polish does not have articles; thus, the bare noun is ambiguous between the two readings (Table1). We predict that the episodic conditions will be unproblematic for the participants as the use of the bare plural is shared across the three languages. In addition, the Polish native speakers are more likely to accept the bare plural (in appropriate and inappropriate contexts), compared to the bilingual EngN group.

**Participants.** The trilingual participants resided either in Norway (PolN, n=14) or in Poland (PolP, n=26). Our control groups consisted of Norwegian native speakers (Nor, n=32), and native English speakers residing in Norway (EngN, n=36).

**Materials.** We used a Truth Value Judgment Task inspired by Ionin and Montrul (2010), distributed online. The participants saw a picture depicting the target NP (1000ms) followed by a written description. They were instructed to read the description (1) after which a summary sentence appeared (2,3) with the subject expressed either as a bare or a definite plural.

**Analysis.** We fitted *glmer* models for each of the target groups, with response (true vs. false) as the dependent variable and condition (characterizing vs. episodic) and noun form (bare vs. definite) as dependent variables, participant and test item were set as random effects. Additional analyses will be discussed at the conference.

**Results.** The PolP group demonstrated a clear preference for the bare form, a CLI effect from Polish, although they rejected the definite in the generic condition ( $p < .001$ ). At the same time, they rejected the bare plural in the characterizing condition more than the other groups. Furthermore, this group demonstrated a different pattern in their L2 English, suggesting that the semantic distinction was acquired in English but not transferred to Norwegian. The PolN group were more advanced in understanding the form–meaning mappings, thus evidencing the positive effect of their Norwegian environment. This group also had a stronger grasp of the distinction in English, even though they did not readily reject the definite plural.

**Interpretation.** Confirming our predictions, our results provide evidence of native language CLI as well as the positive effect of abundant native input.

(1) Example context

NOR: Det er en dagligvarebutikk i byen som selger uvanlig frukt og grønnsaker. Mens en banan vanligvis er en gul frukt, er deres bananer blå og de smaker som vaniljeis.

ENG: There is a supermarket in town that sells unusual fruit and vegetables. While the banana is usually a yellow fruit, their bananas are blue, and they taste like vanilla ice cream.

(2) Generic (green signals acceptable while red stands for unacceptable in the context)

Bananer er gule. /Bananene er gule. Bananas are yellow/The bananas are yellow.

(3) Episodic

Bananer er blå./Bananene er blå. Bananas are blue./The bananas are blue.

Table 1: Overview of meanings and their expressions in Polish, English and Norwegian

*Meaning POL ENG NOR Contrasts*

Characterizing Bare\_pl Bare\_pl Bare\_pl POL=ENG=NOR Episodic Bare\_pl Def\_pl Def\_pl  
POL=ENG=NOR

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## Singular generic noun phrases in L3 Norwegian

Marta Velnic (NTNU)\*; Roumyana Slabakova (University of Southampton and NTNU );  
Anne Dahl (NTNU)

**Introduction.** In this study, we explore the effect of previously acquired languages on the acquisition of generic singular nouns in L3 Norwegian. We look at three different types of generics: *Kind*, denoting members of a species; *characterizing*, or prototypical representatives of a class (Carlson & Pelletier, 1995); and *type-denoting*, non-referential NPs (Borthen, 2003). Acquisition of genericity is prone to cross-linguistic influence as studies from L2 (Ionin, Montrul, Kim, et al., 2011; Snape, 2013; Snape et al., 2013) and L3 (Ionin, Montrul, & Santos, 2011) have shown.

**Rationale.** We focus on the form-to-meaning mapping of singular forms (bare/definite/indefinite) in the three types of generic NPs. Norwegian and English are compatible in their use of the definite singular in kind contexts (1) and the indefinite singular specifically for characterizing contexts (2). Norwegian and Polish show similarities in the use of the bare form, as this form is used in Norwegian to express number-neutral meanings (3). Polish does not have articles, while English bare singulars are ungrammatical; the target L3 Norwegian uses all three forms (Table 1). If CLI comes from L1 Polish, we will expect target-like behavior in type-denoting contexts and a possible over-acceptance of the bare form across the test items; if L2 English is the source of transfer, we expect high accuracy in kind and characterizing contexts.

**Participants.** The trilingual participants resided either in Norway (PolN, n=14) or in Poland (PolP, n=26). Our control groups consisted of Norwegian native speakers (Nor, n=32), and native English speakers residing in Norway (EngN, n=36).

**Materials.** We used a contextualized acceptability judgment task which was distributed via an online platform. The participants read a context sentence after which the target generic sentence appeared. They were instructed to judge this sentence as good/bad in the given context. **Analysis.** We fitted *glmer* models on each NP form with response (good vs. bad) as the dependent variable, and group and condition as independent variables. Participant and test item were set as random effects.

**Results.** The PolN group results revealed a good grasp of the semantic uses of the forms (e.g, statistically significant rejection of the indefinite in Kind contexts). The PolP group results do not show any statistical differences, indicating overall acceptance of all test items. In the group comparisons, the definite form is accepted significantly less in the Kind condition, but it is accepted significantly more in type-denoting conditions when compared to the controls, suggesting that our target groups have not fully acquired the use of the definite form in Norwegian. The Polish L1 speakers are more accurate with the indefinite form by accepting it in characterising contexts, but they nevertheless have a significant rejection of this form in type-denoting conditions, differing significantly from control groups.

**Interpretation.** The PolN group is more finely attuned to the semantic differences in Norwegian than the PolP group. Both groups signal transfer from L1 Polish rather than L2 English, as the bare singular is highly accepted in all three conditions. Possible explanations will be discussed.

**Keywords:** Genericity, Third language acquisition, Acceptability judgment task, Norwegian

Table 1: Overview of form-meaning mapping in the three languages

	<i>Kind</i>	<i>Characterizing</i>	<i>Type-denoting</i>
Polish (L1)	Bare	Bare	Bare
English (L2)	Definite	Indefinite/definite	Indefinite
Norwegian (L3)	Definite	Indefinite/definite	Bare
Overview	Pol≠Eng=Nor	Pol≠Eng=Nor	Pol=Nor≠Eng

(1) Kind context

Context: Mange dyrearter som har levd på jorda er nå borte for alltid. Et eksempel er at ...

Item: *elefantfuglen/ en elefantfugl/ elefantfugl* er utryddet

Translation: Many animal species that have lived on our planet are now gone forever. For example, the *elephant bird/an elephant bird/ elephant bird* is extinct.

(2) Characterizing context

Context: På skolen i dag lærte vi noen ganske ukjente fakta om dyreriket. Et eksempel er at ...

Item: *sjiraffen/en sjiraff/sjiraff* har lilla tunge.

Translation: Today at school we learned some little-known facts about the animal kingdom. For example, *the giraffe/a giraffe/giraffe* has a purple tongue.

(3) Type-denoting

Context: Under pandemien var mange mennesker ensomme. Forskning har vist at ...

Item: det er sunt å ha *hunden/ en hund/ hund*.

Translation: During the pandemic a lot of people suffered from loneliness. Research has found that it is healthy to have *the dog/a dog/dog*.

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# Experimental Studies of Translation Reception: Eye-tracking the Reader Experience of Style

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Given the centrality of notions such as equivalent effect, adequacy and acceptability to Translation Studies, and the long-standing debates in literary circles over the merits of critical approaches centred around authorial intent, reader response criticism, and others, it is surprising that more experimental studies have not been conducted in both TS and literary studies on how real readers actually read literary texts. Umberto Eco's (1990) 'intention of the text' (*intentio operis*) construct goes some way to reconciling the contrasting positions of the author and the reader in the literary transaction, but such analyses are still reliant upon critic-driven, subjective assessments of textual features and assumptions about interpretations and effects. Drawing a parallel with Eco's notions of 'open' and 'closed' texts (1979), the eye-tracking experiment presented in my monograph *An Eye-Tracking Study of Equivalent Effect in Translation* explores the effects of what I have dubbed 'stylistically open' and 'stylistically closed' textual features to explore and compare how readers experience salient stylistic features in the source and target texts.

The presentation draws on a case study of Raymond Queneau's *Zazie dans le métro* (1959) and its English translation by Barbara Wright (1960). As a renowned member of Oulipo, a French experimental literature group, Queneau had long commented on the illogical orthography of French compared with spoken French. In *Zazie*, he employed what he called 'néo-français', a morpho-syntax and quasi-phonetic eye dialect typical of spoken Parisian urban French, which he juxtaposed with interjections of 'standard' and, at times, quite elevated French.

Using this case study as an example, the paper outlines the innovative experimental method, the key findings from the experiment, and looks at the wider implications of the data in terms of the connection between stylistic complexity and the idiosyncrasies – as well as the commonalities – in individual readers' experiences. The underlying objective of this research and future work is to provide experimental data from real readers with a view to situating the reader and the reading experience more firmly in reader-oriented critical frameworks. The paper therefore presents as this proof-of-concept, some tentative responses to fundamental questions about how source and target texts are experienced, and posits some wider questions about scope for future biometric reception research in Translation Studies.

Keywords: eye-tracking, reception, style, equivalent effect

# The influence of spelling reforms on bilingual word processing: Research proposal

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The leading goal of language reforms is to streamline the use of language by, for instance, simplifying its orthographic rules. However, few language reforms have entered everyday use, making their effectiveness rarely subject to empirical analysis. Although simplification is usually associated with facilitation, psycholinguistic studies of pseudohomophones (i.e., non-existent words that are phonetically similar to real words but using non-standard orthography) (e.g., *nuż*, *sience*) indicate that they are more difficult to process, compared to real words as well as pseudowords (i.e., non-existent yet pronounceable words) (e.g., *opej*, *acklon*). This phenomenon is known as the pseudohomophone effect and has been observed in psycholinguistic studies employing, for instance, the reaction time methodology (Martin 1982; Vanhoy and Van Orden 2001). The purpose of this study is to investigate the pseudohomophone effect in the context of bilingualism, and thus to determine whether the linguistic changes proposed by language reforms produce comparable effects when processed in the first (L1; i.e., Polish) and second language (L2; i.e., English). The pseudohomophones that will be used in the study come from *Jednodniówka futurystów* (Jasieński et al. 1921) and the *Handbook of Simplified Spelling* (Paine 1920).

The study will employ the reaction time (RT) methodology with a lexical decision task, where Polish-English proficient bilingual speakers will be asked to read Polish and English sentences and decide whether the last word of the sentence is a real word occurring in Polish or English. For the purposes of this study, a database of sentences ending in pseudo-homophones (e.g., "Students of history are not interested in sience."), real words (e.g., "The cat played with the ball."), pseudowords (e.g., "She picked up the acklon."), and nonwords (i.e., unpronounceable and meaningless words) (e.g., "It was only her bnigo.") has been created.

The study aims to test two hypotheses. First, regardless of word type, RTs for L1 stimuli are hypothesized to be faster compared to L2 stimuli. Second, the pseudohomophone effect is speculated to emerge only in L1, due to the variability of English phonology and spelling, as well as a higher exposure to L1 compared to L2, even in the case of high-proficiency bilingual speakers.

Word count: 351

Keywords: bilingualism, pseudowords, pseudohomophones, word processing

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## Language background of the reader as a factor in translation reception of popular fiction

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While there is fairly unanimous agreement among translation scholars that translated language differs from originally written language (Chesterman, 2004; House, 2008; Malmkjær, 2008; Olohan & Baker, 2000; Toury, 2004), the question whether these differences (e.g., language and translation errors) affect the reading and reception of translated texts by the reader has been hardly ever asked in empirical studies (Kruger, 2013; Walker, 2019). In effect, the issue of the reception of translated texts remains one of the most under-researched areas in Translation Studies (Kruger & Kruger, 2017). Although the eye-tracking methodology seems the most suitable to capture the reader's cognitive effort needed to recover meaning from text, there are many variables which contribute to the overall reading experience. The research into whole text reading has shown that these can be divided into text- and reader-related factors (Hyönä, Lorch & Kaakinen 2002; Jarodzka & Brand-Gruwel, 2017). In this presentation, we want to report on a translation reception study as a part of a larger reading studies project in which we investigate how the language background of the readers – their proficiency in the language from which the texts were translated – plays a role in the fluency of reading and in the self-reported narrative engagement. Three groups of readers with different levels of proficiency in English read excerpts from popular fiction – a text originally written in Polish, and three excerpts translated from English into Polish while their eye movements were recorded by EyeLink 1000 Plus. The initial findings show that the readers with high proficiency in the language from which the texts were translated and with some translation experience were more distracted by language errors and disfluencies in translated texts than readers with lower levels of proficiency. We attribute these differences to the higher levels of metalinguistic awareness which develop in parallel to translation experience and language proficiency.

(304 words)

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## **Contradiction and disagreement in Polish historical news discourse – (im)politeness and altered speech acts**

Matylda Włodarczyk (Adam Mickiewicz University)

Not only (im)politeness, but also speech act theory has been among the most robust frameworks in contemporary and historical pragmatics. Although the empirical scope of speech act studies has broadened significantly over the last decade, research using historical material in languages other than English remains modest. Similarly, interfaces between speech acts and (im)politeness have not been fully explored.

The paper focuses on a sample of historical Polish data from eighteenth to twentieth century periodical press. The study explores the relationship between conventionalised expressions and specific speech act functions in historical news. The methodology relies on a mixed-method approach and follows the steps proposed in House and Kádár (2021: 160). Periodical press in the late modern period covers genres constructed discursively as debate (responses to letters to the editor; academic and philosophical conversations, etc.) for which politeness considerations are of utmost relevance.

Speech acts of contradiction and disagreement are approached with the notion of 'speech-act anchoredness', i.e. “those uses of a conventionalised expression in which the default associated function of an expression is not realised” (House and Kádár 2021). The relevant conventional expressions are extracted from based on contemporary normative sources (e.g. multilingual dictionaries; e.g. Trotz 1764). Then, their uses in the analysed material are categorised with a view to their speech act-indicating uses with the aid of a finite and interactional typology of speech acts.

The study will contribute to the extension of the empirical database for historical speech act studies (historical news discourse in Polish) and conventionalisation of speech act types. Methodologically, the paper tests the new theoretical approaches to speech acts (i.e. the concept of “altered speech acts”), confirms their applicability to historical data in different linguacultures and pursues potential sociocultural explanations which have so far not been complete.

## **Bridging the gap: The cognitive perspective in pedagogical lexicography**

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The need for the application of semantic theory in the dictionary-making process has long been recognised, even more so in pedagogical lexicography, which should not only explain but also teach the meaning of words. Atkins (1992/1993 [2008]: 48) made the assumption that theorists and practitioners need to work together if dictionaries are to be improved. The views of lexical semantics developed within the theory of Cognitive Linguistics are seen as highly congenial to the actual practice of dictionaries by both (meta)lexicographers and cognitive linguists, e.g. Van der Meer (1999), Geeraerts (2007), Adamska-Sałaciak (2008), Atkins and Rundell (2008), Kövecses and Csábi (2014), Ostermann (2015), and Dalpanagioti (2021). The cognitive approach, especially the use of prototype theory and the conceptual theory of metaphor and metonymy has been found useful for the lexicographic representation of certain types of lexical items, mainly polysemous words, lexemes with metaphorical and metonymic senses and multiword expressions based on metonymy and metaphor. Drawing on previously conducted research, the present paper aims to point to the ways in which adopting the cognitive framework can solve practical lexicographic problems concerning meaning explanation of metonymic and metaphorical lexical items. The main lexicographic issues to be discussed will be word sense disambiguation, sense arrangement, treatment of words that belong to lexical sets, and representation of multiword expressions.

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## **Polish bilinguals produce unvoiced stops even in voicing-conducive environments: OP perspective**

Ewelina Wojtkowiak (Adam Mickiewicz University in Poznań)

The extent to which phonetic detail should influence phonological representations has been the centre of a debate for quite some time. Despite some claims disregarding the necessity of conducting phonetic studies in order to validate phonological assumptions (e.g. Substance-free phonology; Hale and Reiss 2000), acoustic experiments have been shown to shed new light on some of the impressionistic assumptions made by phonologists and improve phonological analyses of various processes. As noted by Ohala (1990), if phonological representations fail to refer to phonetic research, they may fail to accurately encapsulate linguistic phenomena. While some progress in this respect has been made in recent years, “phonetics as a motivating force for phonology remains controversial” (Dziubalska-Kończak 2012).

With respect to laryngeal typology the approaches differ. Some theories – e.g. Feature Theory (Chomsky and Halle 1968) – treat the phonetic implementation of laryngeal contrasts as an issue of no interest to phonology. Others – e.g. Laryngeal Realism (Lombardi 1991; Harris 1994; Honeybone 2005) – attempt to incorporate the phonetic reality into their representations.

In this talk I argue that phonetic evidence and insights from SLA research into cross-linguistic interaction might indeed help us determine the way in which two-way laryngeal systems should be represented and yield empirical support to the proposals made by leading laryngeal theories. According to the Speech Learning Model (Flege 1995), bi-directional cross-linguistic interaction stems from “equivalence classification”, whereby L2 learners classify two sounds as belonging to the same phonological category and this can lead to a foreign accent in L2 as well as phonetic drift in L1 (Chang 2012). Assuming equivalence classification is correct in its predictions, the degree of CLI should depend on what a given theory sees as equivalent.

It has previously been shown that equivalence classification effects tend to be asymmetrical in two-way laryngeal systems insofar as they seem to target the voiced series more often. e.g. English-Czech (Podlipský et al. 2020), Bulgarian-English (Dokovova 2015), English-Spanish (Herd et al. 2015), or Brazilian Portuguese-English (Osborne 2016), Polish-English (Wojtkowiak 2022). The question as to what happens in voicing-conducive environments (i.e. when the voiced stop follows and precedes a vowel) has not been explored thus far for Polish-English.

Polish students read sentence lists in Polish, whereby a voiced- or voiceless-initial target word is preceded and followed by a non-high vowel. Longitudinal data obtained from first year students (N=20; tested three times) were compared with the productions of second- (N=15) and third-year (N=15) students as well as with 20 quasi-monolingual Polish speakers. The results show that no influence of phonetic training in English was exerted on Polish /p, t, k/, whereas drift effects in the case of /b, d, g/ were much more striking, with Polish bilinguals producing unvoiced, English-like realisations, despite the context encouraging maintenance of voicing.

It can be assumed, then, that /b, d, g/ are phonologically identical in Polish and English and hence, subject to drift effects, a scenario not predicted by mainstream phonological theories. An alternative approach is offered by Onset Prominence (Schwartz 2016 *et seq*). The representations postulated by OP rely on the feature [fortis] only, move away from linear, segment-oriented representations, and – as will be shown – predict the results of the empirical study presented herein, offering a preferable laryngeal typology of two-way systems.



## Inside and Outside the Changing World of EFL Lexicography

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EFL dictionaries have a history of about 80 years. Minamide (1998) divides the development of the dictionaries into four phases and characterizes them as follows: “Genesis” (1940’s-1960’s), “The age of information condensation and codification” (1970’s), “The age of easy information retrieval and corpus” (1980’s and early 1990’s), and “The age of corpus-based lexicography” (1995 onward). In the mid-1990’s, EFL dictionaries uniformly turned to corpus basis and ease of use. The selection of headword items, the identification of collocations, and the identification and ordering of senses are determined by frequency. Examples are mainly taken from the corpus. Accurate corpus-based information is presented in an accessible way. However, this is not without its problems.

The environment surrounding EFL dictionaries, English language learning, and information search is changing. While there is a shift from paper to electronic media, EFL dictionaries are increasingly facing competition from free services such as reference works, translation software, and generative AI available through smart devices. Against this backdrop, Macmillan closed its dictionary website and withdrew from the market at the end of June 2023. While the situation is expected to remain tough for EFL dictionaries, education in dictionary use will become even more important to prevent dictionaries from becoming obsolete, to make students realize the true value of dictionaries, and to get the students to use the dictionaries fully.

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## **Assessing the Manner of Speech in Australian Virtual Courts and Remote Hearings**

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The manner of speech refers to the way in which the speaker expresses the content of their message in a given context for a specific purpose to a certain audience. The manner of speech speaks volumes about the speakers' socioeconomic backgrounds, educational levels, and psychological traits. In Sociolinguistics and Pragmatics studies, the manner is often marked by the unique personalised use of linguistic, paralinguistic, and extralinguistic features. Common manner-related features include but are not limited to discourse markers (e.g. 'I put it to you', 'well', 'now', 'you know', and 'so'), speech style features (e.g. fillers, hedges, hesitations, false starts, repetitions, and self-repairs), and other features marking the tone of voice, intonation, politeness, formality or register. In Translation and Interpreting Studies, the manner of speech has been long under-researched, particularly in a specialised area of interpreting practices in public service scenarios.

With an overarching aim to increase the awareness of the importance of the manner in high-stake institutionalised courtroom discourses, we resorted to an interdisciplinary mixed-method approach to examine the factors that impact the manner on the overall accuracy of interpreting in virtual courts and remote hearings. Using survey instruments and the experiment conducted with fifty certified professional interpreters, we collected interpreting performance data in connection with their prior knowledge, views, perceptions, strategies, and professional decisions on the reproduction of the manner-related features. Data were first quantitatively analysed with descriptive statistical methods to identify emergent patterns and tendencies. Then quantitative results were triangulated with qualitative data using Discourse Analysis and Content Analysis methods.

Our initial findings suggest a disparity between interpreters in their prior knowledge about the type and the corresponding functions of manner-related features in court discourses, as evidenced by additions, omissions, moderations, softening of the tone of voice, deletions of strong emotional languages, alterations, and substitutions in their renditions.

The contribution of this study is mainly three-fold: (1) to increase the growing awareness of the importance of the manner of speech in interpreter education and continuous professional development; (2) to foster intra-professional solidarity among language interpreter communities; and (3) to cultivate inter-professional understanding and collaboration between the judicial officers and the professional interpreters for effective public service and better legal communication.

# **“dying children, mothers in despair” – a computer-mediated discourse analysis of the portrayal of Ukrainian civilians and nation on the basis of Internet fora in Polish**

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The current proposal will focus on the linguistic construction of the civilian, which emerges from the discussions on Polish online forums and the consequences of particular linguistic choices in mediating this war experience. This seems of primary importance in the light of the social linguistic approach (Phillips and Hardy 2002) to communication where discourse both shapes and is shaped by social reality.

The aim of the poster is to examine the discursive portrayal of civilians affected during the 2022 Russian invasion of Ukraine, based on entries from Internet forums in Polish. The methodology adopted follows the principles of qualitative discourse analysis, with insights obtained from the quantitative exploration of the texts with the help of SketchEngine®. As the results of the study demonstrate, from the micro-perspective, the Ukrainian civilians tend to be portrayed in a passive manner, i.e., as grounds in the presentation of military activities, which can be seen at the level of sentential salience as well as in metaphorical expressions. From the macro-perspective, the discourses of the divided nation (Zhurzhenko 2014: 249) as well as narratives centring upon the criticism levelled at the West, of Russian building of the nationhood or of the fight against fascism were identified (Hutchings and Szostek 2015: 184-191).

It is hoped that such a study will provide new knowledge about how those who are affected most acutely, are communicated about by their fellow neighbours, which can be seen as a particular social behaviour in these unprecedented times of crisis. In this light, the social role of such media as shaping particular views and attitudes cannot be disregarded (Romaniuk 2016: 13).

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