Cross-linguistic priming in bilinguals
Perspectives and constraints

9-10-11 September 2013
Huize Heyendael, Radboud University Nijmegen
Welcome to the cross-linguistic priming conference

Cross-linguistic priming refers to the influence of recent language processing in one language to language processing in another language. What is especially interesting about priming is that it is not only a methodological tool for the experimental study of language processing, but also appears to be an important mechanism underlying linguistic behavior in social interaction.

Cross-linguistic priming has been studied using both experimental and corpus-based techniques, and has led to important insights in, for example, cross-language activation and shared mental representations in bilinguals, discourse alignment processes in bilingual dialogue, and cognitive processes of second language acquisition. Recently, cross-linguistic priming is also explored as a potential mechanism of contact-induced language change.

This conference is aimed at bringing together these different perspectives on the processes and consequences of cross-linguistic priming in bilingual speakers.

Invited speakers:

- Robert J. Hartsuiker, Ghent University
- Eva M. Fernández, Queens College, City University of New York
- Stefan Th. Gries, University of California, Santa Barbara

The conference is organized as part of the ERC-advanced project ‘Traces of Contact’ (PI: Pieter Muysken), in which we investigate language contact phenomena in multiple dimensions of time and space, with a broad and multidisciplinary focus (from historical linguistics to psycholinguistics). For more information on the Traces of Contact project, see www.ru.nl/linc/projects/erc-traces-contact.

We hope you will have a fruitful and inspiring conference.

Gerrit Jan Kootstra
Pieter Muysken
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme</td>
<td>4</td>
</tr>
<tr>
<td>Abstracts: Monday 9 September</td>
<td>9</td>
</tr>
<tr>
<td>Abstracts: Tuesday 10 September</td>
<td>13</td>
</tr>
<tr>
<td>Abstracts: Posters</td>
<td>18</td>
</tr>
<tr>
<td>Abstracts: Wednesday 11 September</td>
<td>24</td>
</tr>
</tbody>
</table>
## Programme

### Monday, September 9

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00</td>
<td>Welcome, coffee and tea</td>
</tr>
<tr>
<td>13:30</td>
<td>Introductory words by Pieter Muysken / Gerrit Jan Kootstra</td>
</tr>
<tr>
<td>13:45</td>
<td><strong>Invited speaker</strong></td>
</tr>
<tr>
<td></td>
<td>Eva M. Fernández</td>
</tr>
<tr>
<td></td>
<td>(Queens College and Graduate Center, City University of New York)</td>
</tr>
<tr>
<td></td>
<td>Bilingualism and language change: Wandering across language boundaries</td>
</tr>
<tr>
<td>14:45</td>
<td>Coffee / tea break</td>
</tr>
<tr>
<td>15:10</td>
<td>Monique Flecken¹, Johannes Gerwien² and Ton Dijkstra¹</td>
</tr>
<tr>
<td></td>
<td>(¹Radboud University Nijmegen, ²Heidelberg University)</td>
</tr>
<tr>
<td></td>
<td>On the L2 acquisition of complex conceptual structures: Aspect priming in L1 and L2 Dutch sentence production</td>
</tr>
<tr>
<td>15:45</td>
<td>Rena Torres Cacoullos &amp; Catherine E. Travis</td>
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<tr>
<td></td>
<td>(Penn State University &amp; Australian National University)</td>
</tr>
<tr>
<td></td>
<td>Priming in code-switching: what grammatical consequences?</td>
</tr>
<tr>
<td>16:20</td>
<td>Gerrit Jan Kootstra &amp; Hülya Şahin</td>
</tr>
<tr>
<td></td>
<td>(Radboud University Nijmegen)</td>
</tr>
<tr>
<td></td>
<td>Cross-linguistic priming and language change: Linguistic and speaker-specific factors in bilinguals’ syntactic choices</td>
</tr>
<tr>
<td>16:55</td>
<td>Drinks and snacks</td>
</tr>
</tbody>
</table>
### Tuesday, September 10

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:10</td>
<td>Welcome, coffee and tea</td>
</tr>
</tbody>
</table>
| 9:30   | **Invited speaker**  
Stefan Th. Gries  
(University of California, Santa Barbara)  
Priming (in L1 and L2): An observational-data perspective |
| 10:30  | coffee / tea break                                                  |
| 11:05  | Geertje van Bergen, Béryl Hilberink, Marianne Starren, & Ton Dijkstra  
(Radboud University Nijmegen)  
The initial development of an L2 lexicon: Effects of frequency and transparency on word recognition |
| 11:40  | David Peeters¹, Elin Runnquist², Daisy Bertrand², & Jonathan Grainger²  
(¹MPI Nijmegen, ²Aix-Marseille University & CNRS, Marseille)  
Bilingual language switching across languages and modalities: RT and ERP effects |
| 12:15  | Natalia Romanova & Kira Gor  
(University of Maryland)  
Mechanisms underlying lexical access in native and second language processing of gender and number agreement |
| 12:50  | Lunch                                                               |
| 13:50  | Gerardo Ortega¹ & Gary Morgan²  
(¹MPI Nijmegen, ²City University London and Deafness, Cognition and Language Research Centre)  
Cross-linguistic priming in cross-modal bilinguals: The role of sign iconicity in word activation |
| 14:25  | Gareth Carrol & Kathy Conklin  
(University of Nottingham)  
Getting your wires crossed: Do L1 idioms presented in L2 show priming effects in bilinguals? |
| 15:00  | coffee / tea break                                                  |
| 15:20  | Poster session: see next page                                      |
15:20 Poster session

- David Allen
  (University of Nottingham)
  Making sense of the Sense model: Translation priming with Japanese-English bilinguals

- Tatiana Kohlstedt
  (Georg-August-Universität Göttingen)
  Processing of novel words in a familiar context: A reading study with advanced learners of German as a foreign language

- Christer Johansson & Irine Fuh
  (University of Bergen)
  Cross-linguistic lexical priming between second languages

- Yasunari Harada¹ & Miwa Morishita²
  (¹Waseda University, ²Kobe Gakuin University)
  Syntactic priming effects revisited: Reconsidering potential priming effects in interactional tasks by Japanese EFL learners

- Orsolya Fazakas
  (Tel Aviv University)
  Language shift and code-switching of Hungarian minority in Israel

- Robbert van Sluijs
  (Radboud University Nijmegen)
  Syntactic priming in narratives: Past time reference in Negerhollands

- Hülya Şahin¹, Ad Backus², Peter Indefrey³, & Gerrit Jan Kootstra¹
  (¹Radboud University Nijmegen, ²Tilburg University, ³Heinrich Heine Universität Düsseldorf)
  Entrenchment of innovative language usage: An experimental study

- Francesca Moro & Pablo Irizarri van Suchtelen
  (Radboud University Nijmegen)
  Dominant language transfer in heritage speakers in the Netherlands: Evidence from elicited semi-spontaneous production in Spanish and Ambon Malay

18:30 Dinner in Restaurant De Waagh (in city centre of Nijmegen)
Wednesday, September 11

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:10</td>
<td>Welcome, coffee and tea</td>
</tr>
<tr>
<td>9:30</td>
<td>Miwa Morishita¹ &amp; Franklin Chang²</td>
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<tr>
<td></td>
<td>(¹Kobe Gakuin University, ²University of Liverpool)</td>
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<tr>
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<td>Using structural priming to promote implicit learning of elementary-level Japanese EFL learners</td>
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<td>10:05</td>
<td>Robert M. Maier</td>
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<td></td>
<td>(Universität Augsburg)</td>
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<td>The impact of linguistic biography on cross-linguistic structural priming in spontaneous translation tasks</td>
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<tr>
<td>10:40</td>
<td>coffee / tea break</td>
</tr>
<tr>
<td>11:05</td>
<td>Gunnar Jacob, Kalliopi Katsika, Mark Calley, Lisa Martinek, Neiloufar Family, &amp; Shanley Allen</td>
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<tr>
<td></td>
<td>(University of Kaiserslautern)</td>
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<tr>
<td></td>
<td>The role of surface and global syntactic structure in cross-linguistic priming</td>
</tr>
<tr>
<td>11:40</td>
<td>Martijn Goudbeek &amp; Emiel Krahmer</td>
</tr>
<tr>
<td></td>
<td>(Tilburg University)</td>
</tr>
<tr>
<td></td>
<td>Crosslinguistic priming in interactive reference</td>
</tr>
<tr>
<td>12:15</td>
<td>Lunch</td>
</tr>
<tr>
<td>13:20</td>
<td>Invited speaker</td>
</tr>
<tr>
<td></td>
<td>Robert J. Hartsuiker</td>
</tr>
<tr>
<td></td>
<td>(Ghent University)</td>
</tr>
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<td></td>
<td>The development of shared syntax in second language learning</td>
</tr>
<tr>
<td>14:20</td>
<td>Goodbye</td>
</tr>
</tbody>
</table>
Invited talk
Bilingualism and language change: Wandering across language boundaries

Eva M. Fernández
Queens College and Graduate Center, City University of New York

I will provide an overview of findings from two recent research projects which suggest that sustained interaction between the bilingual’s two languages can be a first and important step toward longitudinal language change. The first investigation, the topic of a dissertation by Agustina Carando (CUNY Graduate Center), involves using a priming methodology to induce bilinguals to produce innovative constructions in their first language. The second, a collaboration with Ricardo de Souza (Universidade Federal de Minas Gerais, Brazil), examines differences between bilinguals and monolinguals in their tolerance of different argument structures, using a sentence recall/sentence matching technique. Data such as these allow us to examine how two languages interact in bilinguals, inducing momentary lapses in performance which lead to long-term novel representations in the linguistic competence repositories.

On the L2 acquisition of complex conceptual structures: aspect priming in L1 and L2 Dutch sentence production

Monique Flecken¹, Johannes Gerwien² and Ton Dijkstra¹
¹ Donders Centre for Cognition, Radboud University, Nijmegen
² Institut fuer Deutsch als Fremdsprachenphilologie, Heidelberg University, Germany

The ‘final frontier’ in L2 acquisition may be represented by the acquisition of conceptual knowledge. In particular, acquiring knowledge of linguistic structures that require perspective-taking on an event is challenging for L2 learners (Flecken et al. 2013; v. Stutterheim 2003). Here, we address the question whether German L2 learners of Dutch have acquired principles of use of progressive aspect, using a sentence priming paradigm. Crucially, in Dutch use of aspect is optional in event descriptions, and the form consists of a prepositional phrase (‘aan het’, at-the), plus a verbal infinitive, allowing the investigation of form-related and conceptual components of priming.

L1 and L2 Dutch speakers (both groups, N=30) participated in a sentence recall task (hidden priming design, cf. Bock & Loebell 1990), with 3 prime types preceding target pictures (N=30) showing events of the type ‘causative action’ (agent performing an action on an object): - a prepositional-phrase form prime (no aspectual meaning) het kasteel staat aan het water (a castle stands at the water); - a progressive prime (form plus conceptual prime,
aspectual meaning) *de kleuter is een film aan het kijken* (the toddler is a film at-the-watch (is watching)); - a neutral prime *de huisvrouw bakt een taart* (the housewife bakes a cake).

For L1 Dutch speakers we find that prepositional primes increase use of aspect in descriptions of target pictures, compared to neutral primes. Progressive primes, however, show a stronger priming effect, showing that additional non form-related features boost priming. Interestingly, for the L2 Dutch speakers we find a smaller priming effect for both primes, and no difference between the two. The L2 responses reflect a high sensitivity to form-related over conceptual features of aspect. L2 findings will be analysed in relation to individual proficiency measurements and compared to L1 and L2 use of aspect in un-primed picture description tasks.

References

**Priming in code-switching: what grammatical consequences?**

Rena Torres Cacoullos & Catherine E. Travis
Penn State University & Australian National University

In this work, we investigate the effects of priming and code-switching on variable Spanish subject expression. The study is based on multivariate analyses of approximately 1,500 tokens of 1sg verbs extracted from the New Mexico Spanish-English Bilingual corpus, a corpus of spontaneous speech with a roughly even distribution of Spanish and English by the same speakers and smooth code-switching throughout (Torres Cacoullos and Travis In preparation). Contrary to prior proposals (e.g., Backus 2005: 334; Thomason 2001: 136; Winford 2005: 86), our data do not support a global effect on the subject pronoun rate for code-switching, defined as use of multi-word English sequences in the same or preceding clause, seen in (1). We find both language-internal and cross-language priming effects, based on the realization of the previous coreferential 1sg subject and the immediately preceding clause subject, such that unexpressed subjects tend to be followed by unexpressed subjects, while preceding pronouns (Spanish yo, English I, and other personal pronouns), as in (1), favor a subsequent 1sg pronoun. Given the rarity of unexpressed subjects in English, when speakers have recently used English, a higher proportion of the data occur in an environment favorable to expressed subjects—that of a preceding expressed subject—than is the case in the absence of English. We submit that what scholars have interpreted as intrinsic code-switching effects may be the result of the associated priming of parallel structures and shifts in the
frequency of relevant contextual features, which modestly raises the overall rate without altering the constraints on variable occurrence, or the structure of variability.

(1) Miguel ...(1.5) I was like nineteen.
... years old.
.. pero yo me acordaba. [04 Piedras y gallinas 0:20:08- 0:20:13] ‘I was like nineteen years old. But I remembered.’

References

Cross-linguistic priming and language change: Linguistic and speaker-specific factors in bilinguals’ syntactic choices

Gerrit Jan Kootstra & Hülya Şahin
Radboud University Nijmegen

Language contact can be studied at many levels of aggregation, with contact-induced language change from a historical perspective on the one end of the continuum and cross-language activation in the mind of bilingual speakers on the other end (Muysken, 2010). In this talk, we focus on the question whether cross-language structural priming in bilingual speakers can serve as a cognitive mechanism underlying contact-induced language change. Cross-language structural priming is the process in which bilingual speakers have the tendency to re-use the syntactic structure of a previously heard sentence in one language in the production of a new sentence in another language (e.g., Hartsuiker & Pickering, 2008; Pickering & Ferreira, 2008). This is a form of language contact in which exposure to one language influences the production of sentences in another language.

We investigated priming in the production of dative sentences by Papiamento-Dutch bilinguals. In Dutch, dative sentences can be produced using either a prepositional object structure (e.g., "the man gives the ball to the woman") or a double object structure (e.g., "the man gives the woman the ball"). In Papiamento, however, people predominantly use the double object structure. In a baseline study, we first examined whether this preference for the double object structure is indeed present in Papiamento. Papiamento-Dutch bilinguals from Aruba and the Netherlands described movie clips representing a dative event (e.g., a man
giving a ball to a woman) in Papiamento. We found that the double object structure was indeed the preferred structure, but that the Papiamento speakers from the Netherlands also used prepositional object structures – a possible sign of contact-induced language change. In a subsequent cross-language syntactic priming experiment in a new group of Papiamento-Dutch bilinguals from the Netherlands, we found that participants produced prepositional object dative structure significantly more often after hearing a Dutch prepositional object prime sentence than after hearing a Dutch double object prime sentence. We will argue that this priming effect can be interpreted as a mechanism of contact-induced language change: Syntactic preferences in Papiamento dative structures changed as a function of contact with Dutch dative structures. We will also present results on the extent to which syntactic choices were influenced by speaker-specific factors, most notably age. In the discussion, we will bridge psycholinguistic theories on priming with theories on contact-induced language change.

References
Invited talk
Priming (in L1 and L2): an observational-data perspective

Stefan Th. Gries
University of California, Santa Barbara

For several decades now, priming has been studied from a vast variety of angles and perspectives. For nearly all this time, the experimental methods – picture description, sentence completion, conversational tasks – have accounted for the vast majority of empirical studies. One of the most important reasons for this strong imbalance is the notion that experimental designs allow for a tighter control of all the factors that might be also partially relevant for priming effects such as phonological structures, lexical repetitions, discourse effects involving givenness of referents etc. While this notion is certainly correct, however, experimental designs also come with some limitations in terms of the number of factors, lexical items, distances etc. that can be tested or explored (before rigorous significance-testing is possible); - modern statistical approaches are now available that can address many confounding and moderator variables and, thus, allow for a more precise study of priming effects than have been possible until recently.

In this talk, I will survey a variety of recent observational approaches to priming phenomena with an eye to showcasing new and exciting developments in this area of research.

The initial development of an L2 lexicon:
Effects of frequency and transparency on word recognition

Geertje van Bergen, Béryl Hilberink, Marianne Starren, Ton Dijkstra
CLS, Radboud University Nijmegen

Previous research has widely shown that word frequency and cognate status influence word recognition in proficient bilinguals (e.g., van Heuven et al., 1998, Lemhöfer et al., 2008): bilinguals recognize HF words and cognates better and faster than LF words and non-cognates. Yet, very little is known about how these effects come about in initial stages of second language acquisition, that is, at the earliest stages of developing an L2-lexicon.

We investigated how fast learners recognize words in a new language from the very first exposure. A 10-day Polish language course was designed especially for this purpose. Forty native speakers of Dutch were exposed to approximately 15 hours of controlled Polish input under relatively natural, interactive exposure conditions. At five time intervals (after 0, 3, 6, 9, and 12 hours of exposure), they performed an auditory Polish lexical decision task. Experimental stimuli were manipulated for transparency (experienced similarity between a
Polish word and its L1 equivalent), and frequency of exposure, i.e., the number of times a word was used by the instructor in the classroom.

Learners’ performance was analyzed using techniques from signal detection theory (i.e., $d'$), and RT distribution analysis, both within and across sessions. Preliminary results reveal that learners are better and faster both at recognizing words and rejecting nonwords over sessions. From the second session, transparent words are recognized faster more accurately than intransparent words; this transparency effect becomes smaller as exposure to L2 increased, both within and across sessions. In addition, words are recognized better and faster as they are used more often in the classroom, but the frequency effect within sessions diminishes over sessions.

These preliminary findings indicate that during the development of an L2 lexicon, learners very quickly move from a guessing strategy towards a faster and more successful lexical retrieval strategy, thereby relying less on L1 as exposure to L2 increases.

Bilingual language switching across languages and modalities: RT and ERP effects

David Peeters¹, Elin Runnquist², Daisy Bertrand², and Jonathan Grainger²

¹Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands
²Aix-Marseille University & CNRS, Marseille, France

Bilingual language production studies using a cued picture-naming paradigm have shown that switching language comes at a cost, with larger costs when switching into the dominant language than vice versa (“asymmetrical switch costs”, e.g., Costa & Santesteban, 2004). However, recent experiments in which subjects could decide themselves when to switch languages showed either symmetrical switch costs or no switch costs at all (Gollan & Ferreira, 2009). This suggests that cue-induced switch costs might not reflect basic mechanisms underlying bilingual language production, but rather the specific way in which switches are induced in the lab. Therefore, the present study tested a new paradigm for investigating switch costs in language production that dispensed with any explicit cueing.

Twenty-six late French-English bilinguals named pictures in the same language (either L1-French or L2-English in a within-subject-design) within a block of trials. On each trial the picture was preceded by an unrelated printed prime word from the same language or from the other language. Participants made either a language decision on the word or categorized it as an animal name or not. Their electroencephalogram (EEG) was continuously recorded, and event-related potentials (ERPs) were time-locked to picture onset.

Picture naming latencies in L1 were significantly slower when pictures were preceded by an L2 word compared with an L1 word, independently of the task performed on the word. There were no language-switching effects in the L2 picture naming latencies. The ERPs showed a significant parieto-occipital switch effect in the L1 naming block, which was absent in the L2 naming block, in a time-window 100-200 ms after picture onset.

These results thus reinstate asymmetrical switch costs as a theoretically relevant pattern for understanding basic mechanisms in bilingual language processing, in showing that the
asymmetrical switch pattern can be obtained in the absence of artificial (non-linguistic) language cues.

References

Mechanisms underlying lexical access in native and second language processing of gender and number agreement
Natalia Romanova & Kira Gor
University of Maryland

Despite considerable evidence suggesting that second language (L2) learners experience difficulties when processing morphosyntactic aspects of L2 in online tasks, the mechanisms underlying these difficulties remain unknown. The aim of this study was to explore possible causes for these difficulties by comparing attentional mechanisms engaged at the early stage of lexical access in native and nonnative processing of gender and number agreement within and across phrasal boundaries. The study utilized a grammatical priming paradigm to examine the manner in which native and highly proficient L2 speakers of Russian access and integrate morphosyntactic information when processing gender and number agreement that operates between nouns and adjectives within the same noun phrase (e.g., prostoj kozjol “simple-MASC-SG goat-MASC-SG”) and between nouns and verbs across phrasal boundaries (e.g., byl kozjol “was-MASC-SG goat-MASC-SG”).

The complex patterns of results indicated that while native participants (N = 36) invoked both automatic and strategic attentional mechanisms, L2 participants (N = 36), who had been able to perform at the native-like level in offline tasks, exhibited delayed activation of morphosyntactic information and reliance on strategic mechanisms that operate after lexical access. The study also showed that (1) gender agreement was processed faster than number agreement by both groups of participants, (2) priming effects were equally robust for both categories and for both groups of speakers, and (3) other factors may have contributed to agreement processing more than syntactic distance in local dependencies. These factors include the salience of morphological markers and agreement structures, as well as the nature of gender and number representations that require different processing mechanisms.
Cross-linguistic priming in cross-modal bilinguals: the role of sign iconicity in word activation

Gerardo Ortega¹ & Gary Morgan²
¹MPI Nijmegen, ²City University London and Deafness, Cognition and Language Research Centre

Despite sign languages having long been recognised as fully fledged languages, it is undeniable that they share many similarities with the gestures produced with speech. These similarities can be explained by the visual modality allowing to represent salient features of an action or an object into a manual configuration. A fundamental distinctive feature, however, is the internal sub-lexical organisation of signs (phonology). Signs and gestures can depict properties of a referent but only signs can be decomposed into meaningless constituents. This difference is not always apparent to non-signers and often both types of manual structures are indistinguishable to the inexpert eye. This situation is particularly patent in hearing non-signers learning a signed language as a second language. A number of studies have reported cross-lexical activation between sign and words in deaf signers (Morford, Wilkinson, Villwock, Piñar, & Kroll, 2011; Ormel, Hermans, Knoors, & Verhoeven, 2011; Shook & Marian, 2012). Given the structural similarities between signs and gestures it was predicted that iconic signs would exhibit a similar priming effect in subjects with no knowledge of a sign language. This prediction was tested by administering a cross-modal lexical decision task to hearing non-signers (experiment 1) and hearing adults who learnt a sign language as a second language (experiment 2). It was also investigated whether the depiction of different types of referents (actions and objects) activated semantically related words at different rates. The findings of experiment 1 supported the hypothesis that iconic signs activate words across-modalities despite the absence of a sign lexicon. There was no indication that one type of referent was identified faster because action and object signs led to the same rate of lexical activation. In contrast, the results from experiment 2 suggest that the action-object distinction becomes relevant in proficient signers because only action signs led to cross-modal lexical activation. We conclude that the priming effect in non-signers is caused by participants matching the image produced by iconic signs with a visual representation. That is, non-signers access the meaning of iconic signs through their experience in deducing meaning from co-speech gestures. This effect changes with the development of a visual phonological system with iconic signs being processed via different mechanisms. These results suggest that cross-linguistic activation effects are not restricted to the spoken modality and that they occur across-modalities and in the absence of a sign language.
Getting your wires crossed: do L1 idioms presented in L2 show priming effects in bilinguals?

Gareth Carrol & Kathy Conklin
University of Nottingham

Single word translation equivalents (e.g. dog-chien) demonstrate cross-language priming in bilinguals (Jiang, 1999; Wang, 2007). Monolingual speakers show priming for idiomatic sequences (e.g. pain in the neck) relative to matched controls (e.g. pain in the foot: Swinney & Cutler, 1979). If the lexicon is heteromorphic (Wray, 2002) then larger units may show cross-language priming in the same way as single words. Thus, L1 idioms might influence processing in the L2. Such a finding would have important implications for models of language processing.

In this study the initial words of English idioms, e.g. to spill the… (beans), and Chinese idioms served as primes for the final words in a lexical decision task with high proficiency Chinese-English bilinguals and English monolinguals. The Chinese idioms were always a fixed sequence of four characters (e.g. 畫蛇添足 – draw a snake and add feet) and were translated word-for-word into English. Bilinguals responded to targets significantly faster when they completed a Chinese idiom (e.g. feet) than when they were a matched control word (e.g. hair). English idioms did not prime the final word relative to control words. Monolinguals exhibited the opposite pattern, with priming of the final word of English idioms but not Chinese idioms.

The results show that L1 idioms are activated in L2 processing. Recognition of familiar forms cannot explain the advantage as the translated idioms do not exist in English, therefore some level of interaction between the L1 and L2 is implicated. This could indicate a direct link between the L2 English form and the underlying concept (shared between languages). Alternatively, it may be that the component parts were quickly and automatically translated (Zhang et al, 2011), the idiom was recognized / retrieved in the L1, then spreading activation of the Chinese target primed the single word translation equivalent in English.
Abstracts: Posters

Making Sense of the Sense model: Translation priming with Japanese-English bilinguals

David Allen
University of Nottingham

In bilingual language processing, L1 (first language) primes influence the processing speed of L2 (second language) targets. In contrast, empirical evidence that L2 primes influence the processing of L1 targets is rare. There are several possible explanations for this asymmetry. Links from the L2 to the L1 may be weaker (de Groot, 1992; Kroll & Stewart, 1994), and/or L2 activation may be delayed such that it does not impact L1 processing (Dijkstra & van Heuven, 2002). According to the Sense Model (Finkbeiner, Forster, Nicol & Nakamura, 2004), L2 semantic representations are often not as rich as L1 representations, and therefore do not prime them. However, if bilinguals can be shown to have richer L2 semantic representations (i.e. knowledge of a greater number of senses) than for L1 translations, it provides a method of testing this prediction; more specifically, the priming asymmetry should be reversed. Japanese loanwords from English are ideal for testing this prediction, because their meanings map one-to-one with English words or one-to-many. In other words, because L2 primes (e.g. ball ‘toy’ and ‘dance’) map on to a single L1 sense (e.g. ボール /booru/ ‘toy’), priming should be observed. Furthermore, L1 primes should be insufficient to prime one-to-many L2 targets. To test this hypothesis, 38 Japanese-English bilinguals (Japanese native speakers, intermediate proficiency English) participated in lexical decision tasks in both English and Japanese. Masked translation primes preceded targets in each language. Bilinguals’ responses were speeded only when primes were in the L1 and targets in the L2, supporting previous findings of asymmetrical translation priming effects with lexical decision. These results suggest that it is not the activation of all L1 senses that drives the priming effect in translation priming studies. We consider alternative explanations for the observed asymmetry.

Processing of Novel Words in a Familiar Context: A reading study with advanced learners of German as a foreign language

Tatiana Kohlstedt
Georg-August-Universität Göttingen

Are there differences in the extent to which we use contextual cues provided by a text based on our fluency in a language? The neurolinguistic literature has paid scant attention to this issue with regard to longer textual passages, focussing instead on contextual cues within short sentences. It is likely, however, that the processes that have been shown to influence sentence
processing may have a differential impact on text processing due to working memory demands and the greater complexity of longer text passages.

The current reading study investigates how native speakers and learners of German process novel words within texts. Our aim is to find out if there are any differences in the extent to which surrounding context (provided by a text) influences processing of novel words in L1 and L2 readers of a language. The experiment measures L1 and L2 German readers' electrophysiological responses (EEG) to a target word inserted in a continuous text, where the surrounding text either provides clues to the meaning of the word (primed context) or not (neutral context).

There were no differences in L1 readers' ERPs to a novel unfamiliar word based on whether the word was presented in a primed or a neutral context. In contrast, L2 readers' brain activity to novel unfamiliar words differed based on whether the words were presented in primed or neutral context. There were, however, few differences in L1 and L2 readers' processing of familiar words with both groups showing differential brain activity to familiar words in primed and neutral contexts.

While L1 readers do not appear to use contextual cues to understand the meaning of unfamiliar novel words in their L1, L2 readers use contextual cues from early on to figure out the meaning of unfamiliar words in continuous text.

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Cross-linguistic Lexical Priming between Second Languages

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Twenty subjects whose first language is Ngembe, a language spoken in Cameroon, took part in a experiment involving lexical priming between their second languages: English and French. The target languages were English primed by French, and French primed by English. The baseline was unprimed words. One subject was excluded due to technical problems. All other subjects performed to meet inclusion criteria.

The target words were always translations of the prime. Either the prime and target had a similar onset (e.g. chair -- CHAISE, poire -- PEAR) or they were different (e.g. house -- MAISON, sang -- BLOOD). The target was either French or English, ten pairs and ten baseline words in each target language. All words were selected because they are familiar words, and very different in Ngembe. Presentations were randomized.

Is it necessary for the prime words to activate a common lemma form to accomplish cross-linguistic priming, or is there a path between languages, based on the shape of the words (cf. Brysbaert & Wijnendaele 2002, Kim & Davies 2003)?

Onset similarity was the only significant factor (F(2,36)=36.7; p<0.001). Pairwise paired t-tests revealed significant differences between: baseline and different onset (t(37)=4.79; p<0.001, CI: [23ms,56ms], mean=39ms), baseline and similar onset (t(37)=8.14; p<0.001, CI: [57ms,95ms], mean=76ms) and different vs similar onset (t(37)=4.85; p<0.001, CI:
[21ms,51ms], mean=36ms). CI is a 95% confidence interval for the difference. Onset similarity shows an additive effect; 36ms faster on average, than mere translations.

We cannot reject the hypothesis that a common lemma form is activated, since all translations showed a significant priming effect. There was no significant difference in the direction of priming between the languages. Onset similarity was by far the strongest factor. We interpret this as support that word shape similarity, a superficial characteristic of a word, activates words in both second languages.

References

Syntactic Priming Effects Revisited: Reconsidering Potential Priming Effects in Interactional Tasks by Japanese EFL Learners

Yasunari Harada & Miwa Morishita
Waseda University & Kobe Gakuin University

The results of a priming experiment in an interactive task setting that we conducted earlier, taken together with the results of other studies, syntactic priming tended to depend on the types of sentence structures but it was not clear whether these differences are due to differences in the task types (i.e., sentence completions vs. picture descriptions) or differences in the communicative situations (i.e., monologues vs. dialogues). We considered higher priming rates by Japanese EFL learners in the case of PO prime sentences than DO prime sentences in terms of the limited exposure to the target language (i.e., English) resulting in the unbalanced input and output of such sentence structures. On the other hand, in the case of active / passive sentences, infrequent structures (i.e., passive sentences) were primed less than frequent structures (i.e., active sentences). In the presentation proposed here, we reconsider those results in terms of differences in grammar organization between English and Japanese.

Difference in organization of grammar may partially contribute to difficulties Japanese learners of English experience when they try to produce English sentences on the fly. In English PO constructions, indirect objects are designated by prepositions/particles and in DO constructions they are designated simply in terms of word order. In Japanese, case-relations are expressed by case-marking postpositions/particles and we can scramble various sentence elements and there are no alternate constructions. English passive sentences express different points of views from active sentences in terms of agent-patient-action relationships, whereas Japanese passive sentences express (adverse) affect on the sentence topics or subjects. Japanese intransitive sentences can easily passivize as in Taro-wa ame-ni hura-re-ta. / Taro-topic rain-case-marker fall-passive-past / It rained on Taro. JEFLLs often produce erroneous sentences
such as I was stolen my purse. intending to mean My purse was stolen. or I had my purse stolen.

Language shift and code-switching of Hungarian minority in Israel

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Tel Aviv University, Department of Linguistics

In this paper I will present the results from my research exploring the language shift and code-switching of Hungarian minority group in Israel.

The research participants are first and second generation Hungarian immigrants living in Israel. The first generation was grown up with at least two languages and belong to Hungarian speaking minority groups but its members didn’t or just partially gave the 'language of origin' to the second generation. The knowledge of Hungarian language, language use and its prestige recedes constantly. The decreasing number of the Hungarian-speaking ethnic group is a consequence of assimilation.

Why do bilinguals code-switch? What is the prestige of the Hungarian Language in the minority group? Languages play crucial roles in their social interactions (Fishmann, 1997) but a language is a symbolic system, it also may revitalize a nation, ethnic identities and loyalties.

The aim of the research is to present the language shift and code-switching of bilingual language use of Hungarian minority from the aspects of Optimality Theory (Prince-Smolensky, 2004) with particular attention to the relationship between language and power. Using the data of the research which shows the participants actual language practices at different fields of the society in which they manage language diversity on a daily basis in Israel.

References:

Syntactic priming in narratives: Past time reference in Negerhollands

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While syntactic priming has been studied thoroughly in psycholinguistic experimental studies, the corpus based approach has been shown to be useful for the study of priming effects as well (Gries 2005). In fact, quantitative variationist studies on the variable expression of past time reference in a variety of Caribbean English-lexified creole languages and varieties
of English have found effects of syntactic priming (e.g. Schiffrin 1981; Sabino 1986; Tagliamonte & Poplack 1993; Poplack & Tagliamonte 2001; Hackert 2004), sometimes referred to as concord effect or formal parallelism. Negerhollands is an extinct, Dutch-lexified creole language from the nowadays US Virgin Islands, that allows both zero or unmarked pasts (example 1) and overt pasts (example 2), where past time reference is expressed through the preverbal particle \((h)a\).

(1) Di nolí sē: kō lō mi mi a Briment.
    the donkey say come go with 1sg NA Bremen
    ‘The donkey said: “Come join me to Bremen.”’ (DJDJ 1926:16)

(2) Den di twē fa sinə a wanda maŋkandoa.
    then the two of 3pl PST walk together
    ‘Then the two of them went together.’ (DJDJ 1926:16)

The empirical quantitative variationist approach used in this study is able to identify not only which factors account for the variation in the expression of past time reference, but also what factors compete with syntactic priming effects: i.e. aspect, phonological context, and narrative function. This concurs with Gries’s (2005:377) finding that some individual verbs are more resistant to priming effects. Anyhow, the results of this study contribute more evidence for the cross-linguistically valid importance of syntactic priming for past time reference marking.

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Entrenchment of innovative language usage in Dutch-Turkish bilinguals: An experimental study

Hülya Şahin¹, Ad Backus², Peter Indefrey³, & Gerrit Jan Kootstra¹
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Recent corpus studies have shown that the Turkish spoken by Dutch-Turkish bilinguals in the Netherlands contains innovative language usage – constructions and expressions that are unconventional in Turkish as spoken in Turkey but that are used quite frequently in the Netherlands. This innovative language usage can often be explained by the influence of Dutch, as illustrated in the table below:

<table>
<thead>
<tr>
<th>TR-Turkish</th>
<th>NL-Turkish</th>
<th>Dutch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trene binmek get on the train</td>
<td>Treni almak buy the train</td>
<td>Trein nemen get on the train</td>
</tr>
<tr>
<td>Piano çalmak steal the piano</td>
<td>Piano oynamak play the piano</td>
<td>Piano spelen play the piano</td>
</tr>
</tbody>
</table>
In this study, we had Dutch-dominant bilinguals, Turkish-dominant bilinguals, and Turkish native speakers perform a sentence rating experiment on conventional and unconventional (innovative) Turkish sentences. This way, we studied to what extent the innovative language usage is accepted and entrenched in Turkish speakers from different groups. Results indicate that innovative language usage is accepted more often by the Dutch-dominant bilinguals than by the other two participant groups. This is in line with the argument that the innovative language usage of Dutch-Turkish bilinguals in the Netherlands is based on cross-language interactions between Dutch and Turkish.

Dominant language transfer in heritage speakers in the Netherlands: Evidence from elicited semi-spontaneous production in Spanish and Ambon Malay

Francesca Moro & Pablo Irizarri van Suchtelen
Radboud University Nijmegen

This study is part of a series of studies in which a collection of movie clips is used to elicit a wide variety of linguistic structures in heritage speakers in the Netherlands. A central aim in these studies is to find out to what extent heritage speakers’ production in the heritage language is influenced by the language of the country in which they live – in this case Dutch. The present poster will present data from heritage speakers of Spanish and Ambon Malay on the basis of elicited movie clip descriptions. The data provide indications of cross-linguistic interactions between Dutch and the heritage language. The results will be related to theories on language transfer and language dominance in second language acquisition.
Abstracts: Wednesday 11 September

Using structural priming to promote implicit learning of elementary-level Japanese

Miwa Morishita & Franklin Chang
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Structural priming is the tendency for language users to reuse previously heard sentence structures (Bock, 1986), showing their sensitivity to syntax. It is not known whether structural priming can be used to index syntactic knowledge, particularly in elementary-level learners, whose syntactic knowledge may be weak and piecemeal.

To examine this question, we tested structural priming in 102 elementary-level Japanese EFL university students in a computer-based sentence-ordering task. Target sentences might have phrases like “the woman,” “offered,” “her friend,” “a dress,” and “to,” and participants could create either a PD (i.e., “the woman offered a dress to her friend”) or a DO (i.e., “the woman offered her friend a dress”) structure. Prime sentences had the verb paired with its object and this forced particular structures (e.g., “the butcher,” “offered the worker,” and “the food” => “the butcher offered the worker the food”).

We observed higher PD target production after PD primes than after DO primes, which shows structural priming. This suggests that such a sentence generation task can be used to study and assess syntactic knowledge in elementary-level Japanese EFL learners. In addition, the students improved in their likelihood of completing the PD or DO target structures over the course of the experiment, which suggests the possibility of using structural priming to promote implicit learning of syntactic rules in the EFL classroom. The paper goes on to discuss the effects of the difference in verbs between prime and target sentences as well as English proficiency levels on structural priming. Even early on in the acquisition of a second language, it is possible to use structural priming to study and assess syntactic knowledge.

The impact of linguistic biography on cross-linguistic structural priming in spontaneous translation tasks

Robert M. Maier
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A series of experiments studied the possibility of phenomena akin to structural priming in spontaneous spoken translations (i.e. as an on-line task) of German sentences into English that were provided by natively monolingual speakers of both languages. Priming stimuli were German ditransitive (dative) constructions with two possible orders of objects, both of which may be translated into English as both DO and PO constructions.
This talk will focus on the comparison of observations of two features of the same set of response productions, namely construction choice and response latency. The double approach allows more detailed discussion of whether and how mechanisms of structural priming may be involved in the spontaneous production of translations – a skill that is available to all multilinguals (see Harris & Sherwood, 1978). Based on the model proposed by Hartsuiker and Pickering (2008), the findings presented here go beyond the observations of Schoonbaert et al. (2007) regarding language direction and allow report of the relative impact that factors from participants' bilingual biographies (e.g. onset age of L2 acquisition, proficiency, currently dominant language) may have on both studied features of production.

The role of surface and global syntactic structure in cross-linguistic priming

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Recent research suggests that syntactic information is shared between the two languages of a bilingual (Loebell & Bock 2003). However, proposals differ on whether representation-sharing is based on abstract syntactic structure or surface word order similarity (Hartsuiker & Pickering 2008). In the present study we examine cross-linguistic priming in German-English bilinguals comparing identical vs. non-identical word order and syntactic structure across languages. We use Prepositional Object (PO) and Double Object (DO) structures. Importantly, for these two structures, English and German share the same word order in main clauses (e.g. Der Botschafter sandte einen Brief an den Präsidenten, ‘The ambassador sent a letter to the president’), but not in subordinate clauses, because German requires that subordinate verbs be clause-final (e.g. Der Autor erzählte, dass der Botschafter einen Brief an den Präsidenten sandte, ‘The author said that the ambassador sent a letter to the president’).

We report two cross-linguistic priming experiments, one in which word order was manipulated (Experiment 1), and one which involved the additional manipulation of syntactic structure (Experiment 2). Two groups of advanced German speakers of English read German primes and completed English targets in both experiments. In Experiment 1, the type of syntactic structure between prime and target (main vs. subordinate clause) was always the same. In Experiment 2, we investigated cross-linguistic priming from German subordinate-clause primes to English main-clause targets, and from German main-clause primes to English subordinate-clause targets.

Experiment 1 showed priming from L1 (German) to L2 (English) for main clauses, but not for subordinate clauses where the word order was different. Experiment 2 showed no cross-structural priming. These results provide evidence that global and surface-level structural similarity are very relevant in cross-linguistic priming, and that abstract structural
similarity is not enough in itself to facilitate shared syntactic representation (Branigan, Pickering, McLean & Steward, 2006).

References

Crosslinguistic priming in interactive reference

Martijn Goudbeek and Emiel Krahmer
Tilburg University

Bilingual participants offer a unique opportunity to study how concepts and their relations are stored in the brain. In this talk we focus on this in the context of the production of referring expressions. Previous work on reference in dialogue showed that listeners adapt to the attributes used by speakers (Goudbeek & Krahmer, 2012). These studies showed that when participants are confronted with a description that contained a dispreferred attribute (such as orientation in "the chair seen from the side"), they were more likely to use that attribute in future references. While alignment effects have been shown at the lexical and syntactic level, the alignment found here is claimed to be at the conceptual level (i.e., participants align with the attribute "orientation" and not with the value "seen from the side"). Because the previous experiment does not fully rule out alignment at the lexical or syntactic level, two crosslinguistic studies were set up to provide further evidence for conceptual alignment. In the first study, participants listened to English descriptions ("the chair seen from the front") and had to describe objects in Dutch ("de stoel van de zijkant gezien"). Results showed that participants still aligned with the attribute they heard, even in the absence of identical lexical items. Given that English and Dutch are strongly related languages with similar ordering of modifiers and head nouns, our second study use Spanish/Dutch bilingual participants who listened to Spanish descriptions that all used postmodifiers ("la silla rocha") and had to refer in Dutch using premodifiers ("de blauwe stoel"). In line with the monolingual and English/Dutch crosslinguistic study, the results showed, that, even without syntactic or lexical cues, participants aligned their Dutch descriptions with the (Spanish) attributes they had to listen to, providing further evidence for alignment at the conceptual level. The implications of these findings for (computations) models of language production will be discussed.
Invited talk

The development of shared syntax in second language learning

Robert J. Hartsuiker
Ghent University

Studies on cross-linguistic syntactic priming suggest that bilinguals can share syntactic representations across languages (e.g., Hartsuiker, Pickering, & Veltkamp, 2004). But how are these representations established in late learners of a second language? Specifically, are representations of syntactic structures in a second language (L2) immediately collapsed with similar structures of the first language (L1), or are they initially represented separately? I will present recent work that assessed the strength of cross-linguistic syntactic priming as a function of second language proficiency. The results argue for a developmental trajectory that begins with separate representations for each language (and even for each verb) and that ends with fully shared representations.