# ULAB 2024 Conference Programme

The University of Sussex
5th – 7th April 2024

## Welcome to ULAB 2024!

Welcome to the Undergraduate Linguistics Association of Britain's 13th annual conference!

We are very excited to welcome you to Sussex and to welcome all of our virtual presenters and online attendees.

You can find all the information you need to navigate ULAB 2024 in this document.

In case of an emergency on campus, **please call the security number**: 01273 678234

### Locations

ULAB 2024 will use a hybrid hosting model. The conference's main in-person locations will be in the University of Sussex's Silverstone building, specifically lecture theatres 121, 309, and room 317. Another on-campus location will be Room 76 in the Students' Union (Falmer House), for the games night. The Font (a pub in Brighton) is where the conference dinner is taking place. On this page, you will find directions for getting to (and from) Brighton as well as a link to the full campus map.

People joining online will be able to do so through Zoom; you will have received a link to join via email. If you encounter any difficulties, please email us: ulablinguistics@gmail.com.

### Campus map

You can access the full campus map **here**. Step-free routes are indicated on this map, but you can also find the full accessibility map under 'accessibility'

### Transport - Getting to campus from Brighton.

Here are some recommended modes of transport to the University of Sussex campus. The quickest choice will vary depending on your accommodations (beachfront, central, etc.).
**1. Train:** To get to Falmer Station, which drops you off right on campus, take the train from Brighton Station (typically platform 7 or 8) to Falmer. The train journey is roughly 10 minutes.
**2. Bus:** From Brighton, take either the 23 or 25 bus to the university; you can get off at any of the campus stops (FYI: North-South Road stop is closest to Silverstone). The buses are quite frequent and they operate 24 hours-a-day; you can buy a ticket or just tap on and off. We advise downloading the **Brighton and Hove Buses app** for navigating bus travel.
**3.** If you'd prefer, you can also take an **uber** to (and/or from) campus.

### Registration

Registration will be taking place in Silverstone's ground floor social place (112) for all three days. You can register for the annual ULAB book raffle at registration. To participate, please

write your full name next to one of the available books by 12:30 every day. The winners will be selected at random and declared at the end of each lunch break.

## Types of talk

This year's conference will feature five different talk formats:

Presentations
A range of topics will be covered in these presentations, which will be given by recent or current undergraduates. There will be 15- or 30-minute time slots for the talks.
15 minutes will be allotted for short talks which should aim to last approximately 10 minutes, including time for questions. 30 minutes will be allotted for full talks, which should aim to last 25 minutes, including questions.

Poster Presentations
Recent and current undergraduates will present posters showcasing research on a range of linguistic topics. These will be simultaneous. Feel free to walk around and ask questions.

Plenary Talks
Plenary speakers will discuss a topic of their choice related to their field of study for approximately an hour, including a question and answer period.

Panels
On the Friday and the Sunday, there will be a panel of speakers discussing a topic of interest. Panels will be moderated by a ULAB committee member and there will be opportunities to ask questions. Panels will last roughly an hour.

Workshops
Three workshops - led by academics - are scheduled. These will be engaging discussions aimed at imparting knowledge. Workshops will run for roughly an hour.

## Accessibility

We will be utilising Silverstone and Room 76 in the SU (Falmer House), two on-campus buildings that are accessible. The building's side door provides accessible access to Silverstone, and from there a lift serves all floors. Room 76 is situated on the ground floor of Falmer House, allowing for wheelchair access. There are also toilets situated on the ground floor.
There are step-free routes around campus - you can view the accessibility map here: ULAB 2024 Accessibility Map

## Catering

Those attending in person will receive lunch included in their ticket price. Lunch will be provided everyday in Silverstone 317 from 12:00-13:00. We only have a limited quantity of

each dietary requirement, so please just take food from the selection you specified (for example, if you indicated you were a vegetarian, please don't take a vegan lunch). Although we will try our best to accommodate you, we are unable to promise that we can meet your dietary restrictions (or guarantee lunch will be provided) if you purchased your ticket after 25th March.

Please consider bringing a reusable water bottle and hot drink cup. The Siverstone building has water dispensers, and tea and coffee will be available.

**Photography**

The Local Committee and our hired photographer will be taking photos of the events at ULAB 2024. If you haven't already, please let us know during registration if you don't wish to be photographed.

**Conference competition**

Every year, a prize sponsored by the Linguistics Association of Great Britain (LAGB) is awarded to the best presentation, as voted on by the conference attendees. The prize consists of free LAGB membership for a year and the opportunity to attend and present the research at the following LAGB Annual Meeting with full funding, as well as the option to receive coaching and advice in presenting at academic conferences with a member of the LAGB committee.

**Socials**

For our in-person attendees, we will be holding a social event each day. Everyone with a ticket may attend these, and we hope to see you there for some laid-back fun following a lengthy (but very enjoyable!) day of learning.
On Friday (5th) we will be hosting a **games night** (*TaskmArtie*) in Room 76 in the Students' Union (Falmer House). This should be fun and will involve some linguistics-based activities!
On Saturday (6th) the **conference dinner/social** will take place at The Font - a pub within The Lanes in Brighton. Please note that dinner cost is not covered by your conference ticket; however, the food is reasonably priced and they offer deals for students. The address for The Font is as follows: Union St, South Lanes, Brighton BN1 1HA.
On Sunday (7th) we will be having a **closing party** in the Silverstone building, where drinks (both alcoholic and non-alcoholic) and snacks will be provided - a fun way to wrap things up!

## We hope that you enjoy ULAB 2024!

Many thanks to our sponsors: the School of Media, Arts and Humanities and the department of English Language and Linguistics at the University of Sussex, and the department of Linguistics at Queen Mary University of London.

# ULAB Committees

## Local committee

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|---|---|
| **Chair** | Milly Sandy |
| **Vice Chair** | Mae Denman |
| **Secretary** | Becky Hunt |
| **Treasurer** | Olivia Zhong |
| **Social secretary** | Bronwyn Way |

## National committee

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| **Chair(s)** | Lydia Wiernik<br>*University of Edinburgh* |
| | Roma Dhasmana<br>*University of Aberdeen* |
| **Vice Chair** | Cassie Papp<br>*University of Manchester* |
| **Secretary** | Diya Goel<br>*University of Edinburgh* |
| **Treasurer** | Alice Eddyshaw<br>*University of Manchester* |
| **Archivist** | Eden Elia Müller<br>*University of Edinburgh* |
| **Webmaster** | Kazune Suto<br>*University of Cambridge* |
| **Social media coordinators** | Lucas Pear<br>*Manchester Metropolitan University* |
| | Szaffi Jarbath<br>*University of Manchester* |

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| **Institutional rep coordinator** | Jie Yu 'Nicole' Chan<br>*University of Edinburgh* |
| **Events coordinator** | Diya Goel<br>*University of Edinburgh* |
| **Opportunities coordinator** | Jade Pathak<br>*University of Manchester* |
| **Accessibility officer** | Josie Barnes<br>*University of Sussex* |
| **Journal editor** | Lydia Wiernik<br>*University of Edinburgh* |
| **Magazine editor-in-chief** | Kazune Suto<br>*University of Cambridge* |
| **Institutional representatives** | Milo Campbell<br>*University of Edinburgh* |
| | Clarissa Ki<br>*University College London (UCL)* |
| | Cat Rayson<br>*University of Oxford* |
| | Cassie Papp<br>*University of Manchester* |
| | Milly Sandy<br>*University of Sussex* |

## Conference schedule

**Friday 5th April**

| | | |
|---|---|---|
| 09:00–09:30 | **Conference registration**<br>Location – Silverstone Ground Floor Social Space (112) | |
| 09:30–10:00 | **Introduction and welcome to ULAB 2024**<br>Silverstone 121/Zoom room 1 | |
| 10:00–11:00 | **Plenary: Sociophonetic variation in Puerto Rican Spanish: who gives a roll about r's?**<br>Dr Alba Arias Álvarez<br>*University of Sussex*<br>Silverstone 121/Zoom room 1 | |
| | **Silverstone 121<br>Zoom room 1** | **Silverstone 309<br>Zoom room 2** |
| 11:00–11:15 | **1. Acoustic features of first and second generation Windrush immigrants in England**<br>Francesca Miller<br>*University of Essex* | **2. Perceptual Acquisition of Arabic Emphatic Consonants in the L2: Is Pharyngealisation Enough?**<br>Conal Lowe<br>*University of Cambridge* |
| 11:15–11:30 | **3. "Kermit sueyslide": Scraping orthographic innovations in bypassing Twitter's kill censorship**<br>Cameron Benson-Davis<br>*University of Warwick* | **4. Ay, love, love, sweet love: A corpus-based study of Shakespeare's keywords and collocations about emotions and body sensations**<br>Zhuohan Xinhui Zhang<br>*University of Oxford* |
| 11:30–12:00 | **5. Impoliteness within virtual religious communities**<br>Mae Denman<br>*University of Sussex* | **6. Lying is the most fun a girl can have with presupposition: Investigating the Role of Presuppositions in Judgements of Lying and Misleading**<br>Oliver Cooney<br>*University of Cambridge* |
| 12:00–13:00 | **LUNCH**<br>For in-person attendees, lunch will be served in Silverstone 317 | |

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|---|---|---|
| 13:00–14:00 | **Panel: post-graduate study**<br>Alice Duncan, MSc Linguistics, *University of York*<br>Beatrix Livesey-Stephens, MPhil Game Studies, *University of Abertay*<br>Becky Hunt, PhD Linguistics, *University of Sussex*<br>Ella Nelson, MSc Speech and Language Therapy, *City University of London*<br>Silverstone 121/Zoom room 1 | |
| 14:00–14:30 | **7. The Influence of L2-English on L1-German: a Study on Acceptability Judgements**<br>Katharina Eder<br>*University of Cambridge* | **8. Classification Vectors as a Tool for Modeling Human Speech Discrimination**<br>Paula Arkhangorodsky<br>*University of Toronto*<br>**MOVED TO SUNDAY 14:30-15:00** |
| 14:30–15:00 | **9. Emerging Heritage Language Identities: A Case Study of Polish-Scottish Adolescents in Complimentary Schools**<br>Olga Sawczuk<br>*University of Edinburgh* | **10. Word reading processing by bilingual speakers – Brazilian Portuguese and English with and without ADHD**<br>Débora Silva<br>*University of Porto* |
| 15:00–15:15 | **11. Testosterone and Fundamental Frequency: investigating the impact of testosterone hormone replacement therapy upon the fundamental frequency of transgender men's voices**<br>Eve Doherty<br>*University of Huddersfield* | **12. From Pixels to Print: A Multimodal Discourse Analysis in Anti-Child Abuse Campaigns**<br>Alaa Mohamed<br>*University of Leeds* |
| 15:15–16:15 | **Workshop: SAVE THE NEWS!!!**<br>Professor M.Lynne Murphy<br>*University of Sussex*<br>Silverstone 121/Zoom room 1 | |
| 19:00–21:00 | **SOCIAL: *TaskmArtie***<br>Taskmaster, but with a ULAB twist! We will be working in teams to solve linguistics-related challenges.<br>Room 76, Falmer House | |

**Saturday 6th April**

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|---|---|---|
| 09:00–09:30 | **Conference registration**<br>Silverstone Ground Floor Social Space (112) | |
| 09:30–10:30 | **Plenary: Lexis-Oriented Sociolinguistics: Opportunities and Insights from Vocabulary Variation Studies**<br>Dr Rhys J. Sandow<br>*Queen Mary University of London*<br>Silverstone 121/Zoom room 1 | |
| | **Silverstone 121**<br>**Zoom room 1** | **Silverstone 309**<br>**Zoom room 2** |
| 10:30–10:45 | **13. An OT Analysis of Romanian Metaphony**<br>Izabel Ilie<br>*University College London (UCL)* | **14. Comparing humour production and evaluation in humans and ChatGPT-4**<br>Kateia Hills<br>*University of Birmingham* |
| 10:45–11:00 | **15. Morphosyntactic processing in Hungarian L2 learners of English**<br>Hajna Williams<br>*University of Cambridge* | **16. The Capacity of ChatGPT on Modal Subordination Through the Lens of Discourse Representation Theory**<br>Chunxi Luo & Diya Goel<br>*University of Edinburgh* |
| 11:00–11:30 | **17. Grammar is Against Humanity: How does grammatical incongruity in fill-in-the-blank joke constructions affect perceptions of humour?**<br>Bronwyn Way<br>*University of Sussex* | **18. How do stimulants affect L2 audio-processing in people with ADHD?**<br>Eleanor Streatfeld<br>*University of Birmingham* |
| 11:30–12:00 | **19. Understanding Foreign Accent Perception: investigation into the interaction between speaker and listener factors**<br>Laura Dolata<br>*University of Essex* | **20. How Harmonious: Cross-linguistic Phonological Analyses of Vowel Harmony in Turkic Suffixation: Uyghur, Kyrgyz, Sakha (Yakut), and Gagauz.**<br>Matthew Hale<br>*University of Edinburgh* |

<table>
<tr><td>12:00–13:00</td><td colspan="2">LUNCH<br>For in-person attendees, lunch will be served in Silverstone 317/309.<br>For the second-half of lunch, Dr Rhys J. Sandow (Queen Mary University of London) will be giving a talk on QMUL's postgraduate courses.<br>Thank you to QMUL for sponsoring this lunch.</td></tr>
<tr><td>13:00–14:00</td><td colspan="2">Workshop: Introduction to British Sign Language (BSL)<br>Dr John Walker<br>University of Sussex<br>Silverstone 121/Zoom room 1</td></tr>
<tr><td>14:00–14:15</td><td>21. "I'm on the way back from the game": a corpus-assisted discourse study comparing pronoun use in the football phone-in '606'.<br>James Berriman<br>University of Portsmouth</td><td>22. A linguistic analysis of the Borderscape: signs of migration on the French-Italian border<br>Alessandra Terranova<br>University of Edinburgh</td></tr>
<tr><td>14:15–14:45</td><td>23. "Yedin annem?" ("Have you eaten, my mother?"): on Absence/Presence of the Interrogative Polarity Particle in Cypriot Turkish<br>Arcin Celikesmer<br>University of Glasgow</td><td>24. Left or Right?: Perspective-taking of spatial cognition in adult monolinguals and bilinguals<br>Inés Lee<br>University of Edinburgh</td></tr>
<tr><td>14:45–15:15</td><td rowspan="2">25. The super semantic-pragmatic interface of romantic haptics across power dynamics<br>Milo Campbell & Doul Ihze<br>University of Edinburgh & University of Michigan</td><td>26. "Words We Use": A Narrative Inquiry into How Terms of Endearment Contribute to the Relationship Microcosm<br>Ellie Bostock-Smith<br>University of Warwick</td></tr>
<tr><td>(15:00-15:15 empty)</td></tr>
<tr><td>15:15–16:00</td><td colspan="2">Poster presentations session – simultaneous<br>Silverstone 309<br><br>27. Sociophonetic variation in filled pauses in Southeastern Australia<br>Liz Blackwell</td></tr>
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| | *University of Cambridge*<br><br>**28. Can Plausible Effects of Linguistic Relativism Be Visible in Bilinguals?**<br>Ila Cibu<br>*University of Edinburgh* |
| 19:00–21:00 | **SOCIAL: Conference Dinner**<br>Join us for a casual meal to get to know the ULAB committees and fellow in-person attendees.<br>Please note that dinner cost is not covered by your conference ticket.<br>The Font, Union Street, South Lanes, BN1 1HA |

**Sunday 7th April**

| | | |
|---|---|---|
| 09:00–09:30 | **Conference registration**<br>Silverstone Ground Floor Social Space (112) | |
| 9:30–10:30 | **Plenary: Exploring non-standard syntax: Insights from Tyneside English and the Online Discourse community.**<br>Dr Laura Bailey<br>*University of Kent*<br>Silverstone 121/Zoom room 1 | |
| | **Silverstone 121<br>Zoom room 1** | **Silverstone 309<br>Zoom room 2** |
| 10:30–10:45 | **29. Dissecting the Frog: Understanding ChatGPT's Sense of Humour**<br>Matt Hayden<br>*Newcastle University* | **30. The Selection of Mandarin WH-words between Their Interrogative and Non-interrogative Readings**<br>Rosalyn (Weiyue) Xu<br>*University of Edinburgh* |
| 10:45–11:00 | **31. Prosodic Features in Emotional Speech of Chinese Patients with Parkinson's Disease**<br>Bomiao Zhang<br>*University of Manchester* | **32. The Perception and Access of Written Silence**<br><br>Dezhi Luo<br>*University of Michigan* |
| 11:00–12:00 | **Panel: Being involved with ULAB** | |

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| | Lydia Wiernik, National Chair, *University of Edinburgh*<br>Roma Dhasmana, National Chair, *University of Aberdeen*<br>Beatrix Livesey-Stephens, Previous committee member, *University of Abertay*<br>Milly Sandy, Local Chair, *University of Sussex*<br>Becky Hunt, Local Secretary, *University of Sussex*<br>Silverstone 121/Zoom room 1 | |
| 12:00–13:00 | **LUNCH**<br>For in-person attendees, lunch will be served in Silverstone 317. | |
| 13:00–14:00 | **Workshop: Crosslinguistic patterns**<br>Dr Melanie Green and Shammah Makpu<br>*University of Sussex*<br>Silverstone 317 | |
| 14:00–14:30 | **33. The stories of our lives: Evidence from parametric syntax, phylogenetics, and language contact**<br>Eve Canning<br>*University of Cambridge* | **34. Dutch Sign Language Does Not Have Syllables**<br>Juliette van Steensel<br>*University College London (UCL)* |
| 14:30–15:00 | **35. The influence of sign language acquisition on visuospatial perspective-taking.**<br>Lydia Wiernik<br>*University of Edinburgh* | **Classification Vectors as a Tool for Modeling Human Speech Discrimination**<br>Paula Arkhangorodsky<br>*University of Toronto* |
| 15:00–17:00 | **Annual General Meeting (AGM)**<br>Join us at ULAB's Annual General Meeting (AGM) to vote on the committee and venue for next year's conference. Come along and help us in creating ULAB history—anyone with a conference ticket is able to vote and run!<br>Silverstone 121/Zoom room 1 | |
| 19:00– | **SOCIAL: Closing party**<br>Come and celebrate with us! Snacks and (alcoholic and non-alcoholic) drinks will be available - a great way to end the conference!<br>Silverstone building (third floor). | |

## Plenary Abstracts

1. **Sociophonetic variation in Puerto Rican Spanish: who gives a roll about r's?**

Dr Alba Arias Álvarez
*University of Sussex*

**Biography:**
Alba Arias Álvarez is a Lecturer in Spanish and Linguistics at the University of Sussex. Her research focuses on language variation, diaspora studies, Spanish in the U.S., linguistic landscape, and language attitudes and identities. Her recent work analyses acoustic data on onset /r/ in Puerto Rican Spanish as well as the Asturian-Spanish language contact situation in Asturias, Spain. Her research has been published in journals such as International Journal of Multilingualism, Open Linguistics, Language and Politics, Linguistic Landscape and in various collective volumes such as Redoing Linguistic Worlds: Unmaking Gender Binaries, Remaking Gender Pluralities. She is the founder of The Virginia Corpus of Spanish Variation.

**Abstract:**
Spanish is known to have two contrastive rhotic sounds: the tap [ɾ], and the trill [r]. However, there is a wide range of phonetic variation in the realisations of rhotic sounds attested across Spanish dialects. Puerto Rican Spanish (PRS) is not an exception, as its trill variation is not only present on the island but also within the diaspora. Combining auditory and acoustic analysis, this research studies acoustic data on onset /r/ in Holyoke, MA (USA), the city with the largest per capita population of Puerto Ricans living outside the island. The aim of this project is to analyse whether there is trill variation in the PR community in Holyoke, and whether it mirrors the variation found in Puerto Rico. Special attention is paid to backed /r/ realisations. Three experimental production tasks were designed and employed for this purpose: a picture description task, a map task, and a reading task. Forty-five participants performed the experimental tasks: 21 were recorded on the island and 24 in Holyoke. Results indicate that there are substantial similarities in rhotic variation as well as some variation between Puerto Rico and Holyoke: the same trill realisations are found. However, different linguistic and sociolinguistic variables affect the use of the backed /r/. Findings suggest that the PR community in Holyoke tries to maintain their language, one of the most noticeable signs of immigrants' origin, to strengthen authenticity in the same way that they keep other PR cultural experiences. The differences found suggest that,

although Holyoke maintains a close bond with Puerto Rico due to the back-and-forth migration waves, diasporas are still changing communities which create sites of super-diversity, with different patterns because of these new language contact situations.

2. **Lexis-Oriented Sociolinguistics: Opportunities and Insights from Vocabulary Variation Studies**

Dr Rhys J. Sandow
*Queen Mary University of London*

**Biography:**
Rhys Sandow is lecturer in sociolinguistics at Queen Mary University of London. His key research involves exploring sociolinguistic patterns of lexical variation, focussing on both production and perception. In particular, he is interested in the ways in which by more closely engaging with the level of lexical variation we can better understand processes of language change and the relationship between language and society. Rhys also has research interests in corpus linguistics and phonetics.

**Abstract:**
This plenary marks the development of research presented at ULAB in 2015 at York St. John University. Since then, the primary goal of my research agenda has been to develop a lexis-oriented branch of sociolinguistics, by building methodological, theoretical, and analytical tools to enable the integration of vocabulary into the variationist programme. I will discuss a range of case-studies from my research, drawing upon both production and perception research. In particular, I focus on the ways in which lexis can enable new empirical research questions to be explored and enable new insights into old questions, such as the actuation problem (Weinreich et al. 1968).

While Labov (1973: 370) described the word as the 'linguistic unit of greatest social significance', it is a level of language variation that has been eschewed from the methodological and theoretical considerations of the variationist paradigm (Robinson 2012). However, by not fully engaging with lexis, we provide only an abridged account of language variation. The case-studies discussed in this presentation serve to develop our understanding of i) the processes and mechanisms of language variation and change and ii) the relationship between language and society.

References:

Labov, William. (1973). The boundaries of words and their meanings. In Charles-James N Bailey & Roget W. Shuy (eds.), *New Ways of Analysing Variation in English*, 340–373. Washington: Georgetown University Press.

Robinson, Justyna A. (2012). A gay paper: Why should sociolinguistics bother with semantics?: Can sociolinguistic methods shed light on semantic variation and change in reference to the adjective gay. *English Today*, 28 (4), 38–54.
Weinreich, Uriel., Labov, William., & Herzog, Marvin. (1968). *Empirical Foundations for a Theory of Language Change*. Austin: University of Texas Press.

3. **Exploring non-standard syntax: Insights from Tyneside English and the Online Discourse community.**

Dr Laura Bailey
*University of Kent*

**Biography:**

Laura Bailey (University of Kent) specialises in syntactic theory, comparative syntax, and non-standard varieties. Her research delves into non-standard syntax across diverse communities, from regional dialects like Tyneside or Southeast England to online discourse platforms. With a focus on applying linguistic theory to innovative or little-studied constructions, Laura takes a comparative approach to understanding the complexities of syntactic variation.

**Abstract:**

This presentation delves into the intriguing realm of non-standard syntax through the lens of two distinct communities, one of which is regional (Tyneside) and one which is a 'community of practice' (Eckert 2006). Both projects rely on acceptability judgements to target the precise restrictions and interpretation of these two constructions, the details of which are also presented.

Tyneside has a unique 'double negative' feature in questions: *Have**n't** you **not** brushed your teeth yet?*. I describe recent work (Bailey & Childs forthcoming) in which we build on the featural approach of Zeijlstra (2004) and Tubau (2016) to argue that this is an instance of negative concord with an Agree relation between the negative elements.

The 'online discourse' community is defined not by region or other external variable, but by engaging in a common endeavour. The emerging because X construction (*Gotta sleep **because exams**; I know **because ugh***) has particular pragmatic effects, but is also syntactically constrained, as we show in another recent paper (Bailey, Cook & Kim Under review).

By examining linguistic data from these diverse contexts, we uncover fascinating insights into the variations and functions of non-standard syntax. Through comparative analysis, we explore how these constructions are subject to nuanced syntactic and pragmatic constraints.

Bailey, Laura R. & Claire Childs. forthcoming. Two negatives in Tyneside English questions: Negative concord or double negation? *100 years of negative concord*. De Gruyter.
Bailey, Laura R., Eleanor Cook & Christina S Kim. Under review. A snapshot of the emerging because-X construction. *Sociosyntax* (Topics in English Linguistics). De Gruyter.
Eckert, Penelope. 2006. Communities of practice. *Concise encyclopedia of pragmatics*, *2nd edition. Oxford: Elsevier,* 109–112.
Tubau, Susagna. 2016. Lexical variation and Negative Concord in Traditional Dialects of British English. *The Journal of Comparative Germanic Linguistics* 19(2), 143–177. doi:10.1007/s10828-016-9079-4.
Zeijlstra, Hedde. 2004. *Sentential negation and negative concord* (LOT 101). Utrecht: LOT.

## Panel descriptions

1. **Panel: Post-graduate study**

Alice Duncan
MSc Linguistics, *University of York*

Beatrix Livesey-Stephens
MPhil Game Studies, *University of Abertay*

Becky Hunt
PhD Linguistics, *University of Sussex*

Ella Nelson
MSc Speech and Language Therapy, *City University of London*

**Description:** Considering continuing your studies at a postgraduate level? In this panel you'll hear from four postgrads who studied Linguistics as undergraduates, who will fill you in on what it's like to be a postgrad, how it compares to undergraduate, and things you might want to consider if you do wish to continue your studies. Come along and bring any questions you might have!

2. **Panel: Being involved with ULAB**

Lydia Wiernik
National Chair, *University of Edinburgh*

Roma Dhasmana

National Chair, *University of Aberdeen*

Beatrix Livesey-Stephens
Previous Committee Member, *University of Abertay*

Milly Sandy
Local Chair, *University of Sussex*

Becky Hunt
Local Secretary, *University of Sussex*

**Description:** Past and present National and Local Committee members will provide insightful information in this panel regarding what it's like to be a part of the ULAB community and the great opportunities it can lead to. Join us to learn more about ULAB and how you can get involved!

## Workshop descriptions

1. **Workshop: SAVE THE NEWS!!!**
   Professor M.Lynne Murphy
   *University of Sussex*

   **Description:** The media is full of bad takes on language, masquerading as "news". Even work by linguists is regularly misrepresented. This workshop is about using your linguistic powers for good and holding news organisations to account.

2. **Workshop: Introduction to British Sign Language (BSL)**
   Dr John Walker
   *University of Sussex*

   **Description:** For those who are keen to learn British Sign Language, this workshop will provide an exciting introduction!

3. **Workshop: Crosslinguistic patterns**
   Dr Melanie Green and Shammah Makpu
   *University of Sussex*

**Description:** Interested in uncovering linguistic patterns between the languages of the world? In this workshop, you'll do just that! Guided by knowledgeable experts from Sussex, you'll choose from either a lexical or grammatical data set and work in groups to determine typological categories and patterns.

## Presentation abstracts

1. **Acoustic features of first and second generation Windrush immigrants in England**
Francesca Miller
*University of Essex*

This project examines the sociophonetic qualities of the language used by Caribbean migrants in England. Much of the research into Caribbean-British English usage addresses questions of the influence this group has had on Multicultural London English, with less attention to regions outside of the capital, or to characteristics of the speech itself and how it evolved in the process of migration. More specifically, this study looks at individuals who migrated to the UK in the late 1940s to early 1970s, in what is considered the 'Windrush Generation', and examines the influences on their language and how they use English today. To build on this analysis, we also look at the second generation by speaking to the now-adult children of the Windrush Generation.

More broadly, in exploring these groups, this study attempts to learn more about individual movement and socialisation to see how these factors may have impacted speech use and pronunciation patterns. This is done through the analysis of vowel and consonant acoustics, with particular reference to Standard Southern British English and the dialects and languages of countries in the Caribbean.

2. **Perceptual Acquisition of Arabic Emphatic Consonants in the L2: Is Pharyngealisation Enough?**
Conal Lowe
*University of Cambridge*

Arabic features a phonological distinction between plain consonants /s/, /ð/, /t/, and /d/ and their emphatic counterparts /sˤ/, /ðˤ/, /tˤ/, and /dˤ/. Emphatic consonants are variously described as pharyngealised (Davis, 1995; Al-Ani, 1970) and uvularised (Altairi et al., 2016; Al-Solami, 2013). Emphatic consonants significantly lower the F2 of surrounding vowels (Aldamen & Al-Deaibes, 2023; Card, 1983; Jongman et al., 2011 etc.). Other investigations find raising of F1 (Yeou, 1995; Zawaydeh, 1999) and F3 (Jongman et al.,

2011). However, not every study corroborates these findings (Card, 1983; Kulikov et al., 2021). Due to the lowering of F2 in vowels, Arabic vowels (/a/, /i/, /u/) have backed allophones in emphatic context.

Jongman et al. (2011) and Hayes-Harb &Durham (2016) concluded that L1 and L2 Arabic speakers rely on F2 lowering of adjacent vowels to discriminate plain and emphatic consonants. Hayes-Harb & Durham (2016) suggest that the regular and backed allophones of Arabic /a/ are assimilated into the English phonemes /æ/-/ɑ/. Thus, English speakers are most accurate in distinguishing plain and emphatic consonants when /a/ is an adjacent vowel. However, the literature is lacking a thorough comparison of L1 and L2 Arabic speakers in the same investigation. Furthermore, the emphatic effect on other tautosyllabic consonants has been understudied.

This paper examines L1 and L2 perception of Arabic emphatics. CVC Modern Standard Arabic pseudoword minimal pairs were created in which one consonant differs only by emphasis. They were recorded by three native Arabic speakers. The recordings were cross-spliced to form intermediary stimuli in which some segments are taken from emphatic context and others from plain context. These stimuli were used in a forced identification task. Participants are played pseudowords and must identify their pronunciation out of two Arabic-script options that differ in one plain-emphatic consonant pair.

Data collection is ongoing. Due to this, and obstacles in collection (particularly of L1 Arabic speakers), solid conclusions cannot be confidently made. Preliminary analysis shows that L2 speakers are inaccurate in their perception of emphatic consonants (55% correct). L2 accuracy of emphatic consonants was the best for /t/-/tˤ/ (61.4%), followed by /d/-/dˤ/ (55.2%) and /s/-/sˤ/ (50.2%); only /t/-/tˤ/ is (slightly) above chance There were no significant effects of vowel quality. The highest accuracy was found for /i/ (56.1%), followed by /u/ (55.8%), and /a/ (54.9%).

/sˤ/ accuracy being at chance is consistent with Jongman et al.'s (2011) findings that emphatic fricatives do not have significantly different spectral means whereas fricatives do (contra Bukshaisha, 1985). The highest accuracy for /tˤ/ is consistent with the Extended Native Language Magnet Theory (NLM-e; Kuhl et al., 2008) as English speakers make use of their native /t/-/d/ distinction – usually pronounced [t h ] and [t] (Collins &Mees, 2003; Deterding & Nolan, 2007) – to distinguish the Arabic /t/-/tˤ/ distinguish as /t/ is aspirated whereas /tˤ/ is not. However, contra NLM-e and Hayes-Harb & Durham (2016), accuracy for /a/ is not above chance. This suggests that English speakers do not use their /æ/-/ɑ/ distinction as a cue for emphasis.

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## 3. "Kermit sueyslide": Scraping orthographic innovations in bypassing Twitter's kill censorship

Cameron Benson-Davis
*University of Warwick*

Dialectological work on social media is undertaken to observe and predict changes in social developments among online subcommunities that are often expressive of social identity. However, it has been noted that some subcommunities have been subjected to censorship by social media algorithms and content moderators disproportionate to other subcommunities and without regard to the wider context of the moderated language. This research aimed to document linguistic innovations strategically bypassing censorship, based on a similar typology by Kim et al. (2021). The present study focused on the word kill and common synonyms by generating a small corpus identifying the frequency of items

across selected regions, as well as the conversational context yielding them. Answers utilising strategies described by Kim et al. (2021) were selected as independent variables for scrape using Twitter's REST API with RStudio via OAuth. Orthographic optical strategies were the most common across the entire corpus, appearing even in scrapes of items predominantly falling under other categories. Several contextual elements, like sentiment, speech acts, and metadiscourse, could not be addressed due to the study's small scope, but it at least provides a solid foundation for future research. An issue, however, is that it may prove difficult to study an environment akin to X (now formerly Twitter) because the site has since made their REST API inaccessible, and similar sites, like the emerging Bluesky, have relatively limited quantities of relevant data due to its newness. Time will tell, though.

**Cited in this abstract**
Kim, S.; Oh, C.; Cho, W. I.; Shin, D.; Suh, B.; Lee, J. (2021). Trkic G00gle: Why and how users game translation algorithms. *Proceedings of the ACM on Human-Computer Interaction 5(CSCW2)*, 1-24. Association for the Advancement of Artificial Intelligence.

**4. Ay, love, love, sweet love: A corpus-based study of Shakespeare's keywords and collocations about emotions and body sensations**

Zhuohan Xinhui Zhang
*University of Oxford*

There have been numerous studies of Shakespeare's plays, but few have identified the specific words or collocations that set him apart from his contemporary authors. This study focuses on Shakespeare's emotional expression and its relationship with body sensations. The research data includes two corpora: Shakespeare's corpus (SC) and Shakespeare's contemporary reference corpus (RefC). The dissertation consists of two case studies, one concerning Shakespeare's keywords through keyword analysis with the comparison between two corpora, and the other concerning Shakespeare's collocations through collocation analysis and only using the materials from SC. The results of the first case study show that the keywords do not appear to display any emotional preference, and the top twenty keywords can be divided into five categories as below and their corresponding keyness (using log-likelihood as association measure) is shown in parentheses. It is worth mentioning that each data is kept to two decimal places.

(a) Nouns: *lord* (539.04), *cousin* (423.76), *king* (408.43), *war* (352.60), *master* (296.09), *god* (262.79), *night* (185.00), *day* (151.38), *mistress* (139.20)
(b) Verbs: *go* (235.04), *prithee* (232.66), *say* (174.36), *bid*
(c) Adverbs: *therefore* (200.22), *even* (154.47), *often* (140.67), *well* (134.63)
(d) Adjective: *gentle* (129.88)
(e) Exclamation: *ay* (2777.04), *o* (275.25)

However, the second case study which investigates the collocates of two target words, love and breath, reveal the preference. The collocates of love mostly relate to positive attitudes, and the most frequent collocate of love is itself as in "love, love, nothing but love, still more" in Troilus and Cressida. By contrast, breath more often collocates with neutral words, such as air, words, and lips, and words in negative semantic domains, like death, dead, and foul. It is also worth noting that breath also collocates with itself most frequently. This verbatim repetition pattern may reflect the characteristic of early modern English. The lexical keyword list and the collocate lists provided in this research will probably benefit further studies.

## 5. Impoliteness within virtual religious communities

Mae Denman
*University of Sussex*

Impoliteness has frequently been recognised as a way communities and relationships can be fortified, specifically in ritual insults: sounding the dozens (labov, 1997; lachenict, 1980), or the use of banter to strengthen friendships (Wee, 2015). The high frequency of impoliteness within computer mediated communication has defined this genre, as virtual spaces allow people to direct their impoliteness to a faceless audience. However, there is little research on how impoliteness can also serve to create and maintain virtual communities. Maintaining virtual communities is a difficult task to do, specifically for religious communities that were typically and previously created within relation to a geographic space (Cheong et al., 2009). Virtual religious communities are presented with the challenge of creating and maintaining their virtual group identity whilst also adhering to the ideology of the religion itself. I have chosen to analyse how impoliteness is used within these virtual communities on the social media platform Reddit, as this will allow me to analyse ideological groups that are open to all on the site yet still have a group identity to maintain and ideological views to align itself with. The subreddit r/atheism mirrors the ideological views of the new Atheist movement (Lundmark and LeDrew, 2019), yet still has to navigate the trolling that is rife within reddit, and the subreddit r/Christianity reflects typical Christian ideology. This study and analysis will present how the difficult task of creating community within a virtual space is achieved through the use of impoliteness, specifically showing the difference in the use of impoliteness between these two groups. This research will further the understanding of the role CMC has in aiding virtual groups when societal structures are consistently moving online. I will use quantitative analysis of specific types of impoliteness using framework suggested by Culpepper (1996) to determine the difference in the usage of impoliteness between both groups and analyse what this represents about each group.

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## 6. Lying is the most fun a girl can have with presupposition: Investigating the Role of Presuppositions in Judgements of Lying and Misleading

Oliver Cooney
*University of Cambridge*

The intuitive distinction between 'lying' and 'misleading' is a powerful guide for behaviour and a crucial aspect of many moral and legal theories. Yet within semantics and pragmatics, defining either term to the exclusion of the other has proven challenging. Stokke (2013, 2016, 2018) defines lying through assertion, where one must propose to update the common ground with a proposition that is believed to be false. Misleading, while also falsely updating the common ground, does so through non-asserted content like implicatures or presuppositions. However, studies such as Viebahn et al. (2021), Reins and Wiegmann (2021) and Reins et al. (2021) have shown that the purposeful use of believed-false presuppositions and implicatures are considered lies by native speakers, despite being non-asserted content.

Yet this research inaccurately construes 'presuppositions' to be a homogenous class. Take (1a) which presupposes (1b) and (1c), triggered by the definite description, Dave's girlfriend, and additive particle, too, respectively.

(1)

(a) Dave's girlfriend drives a Honda too.
(b) Dave's girlfriend exists
(c) Somebody else drives a Honda

Glanzberg (2005) argues that if (1b) fails, the interlocutor cannot update their understanding of the world. Without a person to be Dave's girlfriend, there is nobody to drive a Honda. However, if (1c) fails, one can still gather the information that Dave's

girlfriend drives a Honda, allowing them to update their knowledge. Glanzberg proposed (1b) is a 'strong presupposition,' while (1c) is a 'weak presupposition.' Similarly, Degen and Tonhausser (2022) illustrated that factive presuppositions vary in their level of projection. When used in a question, know presupposes the truth of its complement clause (shown in 2a), but reveal does not (shown in 2b).

(2a) Did Dave know he had the car keys?
(2b) Did Dave reveal he had the car keys?

The experimental literature has thus far only investigated the status of strong presuppositions, failing to assess whether weak presuppositions are also considered lies.

This ongoing research aims to investigate whether this variation in the strength of presuppositions is relevant to the definition of lying. Native English speakers are presented with vignettes in which one speaker intends to deceive the other through a believed false presupposition. Presupposition triggers include definite descriptions and factives know and see, shown theoretically and empirically to be stronger than again, too, and even, which are proven to be weak. Triggers falling between these two classes in the literature are also used, including stop and factives reveal and announce. Participants are asked to rate on a gradient scale how far they consider the speaker to have lied and how far they consider them to have misled the interlocutor. My hypothesis proposes that the strength of the presupposition will correlate to its status as a lie, with weak presuppositions being instead considered mere misleading. Should these results be borne out, current theories of lying and misleading will be shown to be inadequate as they uniformly regard presuppositions to be or not to be lies. Theories must instead be adapted or constructed to permit a more nuanced perspective.

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## 7. The Influence of L2-English on L1-German: a Study on Acceptability Judgements

Katharina Eder
*University of Cambridge*

It is well-known that L2 speakers, especially those living in an L2-speaking environment, experience L2&L1 influence. Many factors affecting the extent to which such cross-linguistic influence (CLI) occurs have been proposed, e.g. duration of immersion in the L2-speaking environment (Laufer 2003), frequency of L1-use (Dominguez 2013), amount of code-switching (De Leeuw, Schmid & Mennen 2010) and nature of sociolinguistic contexts (e.g. professional/private) in which L1 and L2 are used (Yılmaz & Schmid 2012). Influence has been demonstrated on the phonetic level (Flege 1987), the morphosyntactic level (Tsimpli et al. 2004), the lexical level (Schmid & Dusseldorp 2010) and the prosodic level (Ulbrich 2012).

As the L2-acquisition of collocations is a difficult process said to cause restructuring of the linguistic system (Altenberg 1991), they have been used in many studies on CLI (e.g. Otwinowska et al. 2021, Laufer 2003). Against this background, the present study analyses acceptability judgements from late German-English bilinguals on German sentences with target collocations consisting of verb + preposition (e.g. träumen von 'dream of') and verb + noun (e.g. Entscheidungen treffen 'make decisions'). The collocations were either grammatical in German, calques (loan translations) from English or ungrammatical in both languages. Data from late German-English bilinguals living in an English-speaking country (target group) was compared to that from late German-English bilinguals living in a German-speaking country (control group) to analyse which factors (i.e. frequency of L1-use; amount of L2-usage; duration of immersion) affected the participants' judgements.

The results show that speakers living in an English-speaking environment give more accurate scores to grammatical and ungrammatical German sentences and show less acceptance of English collocative calques if they use German rarely and English almost exclusively. This is not the case for the speakers who use German on a daily basis and English for less than 7 hours a day. It seems that regular switching between the two languages is a major facilitator for CLI: the more one switches, the more L2&L1-interference they will experience. Additionally, speakers living in an English-speaking environment are more accepting of the calques if they had lived there for six years or longer. This indicates that CLI increases with the duration of L2-immersion. Furthermore, speakers living in a German-speaking country are more likely to accept the calques if they regularly use English

for over one hour a day; it appears that switching between languages is more important for CLI than linguistic immersion.

While Schmid & Köpke (2010) claim that regular L1-use partially prevents CLI, the results of the present study suggest otherwise, namely that it facilitates CLI. This is in line with Dominguez (2013), who found that Spanish-English bilinguals living in a monolingual English-speaking community experienced less CLI than those living in a bilingual community. Furthermore, the results are similar to those by Flege (1987) and Laufer (2003), who found a correlation between the time spent in a L2-environment and increase of CLI. Overall, the results suggest that frequent switching between L1 and L2 is the primary predictor for CLI, alongside duration of immersion in the L2-speaking environment.

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## 8. Classification Vectors as a Tool for Modeling Human Speech Discrimination

Paula Arkhangorodsky
*University of Toronto*

Our native phonemic categories affect our perception of speech. Thus, these phonemic categories frame our intuitions when dealing with phonemes not present in our native language. This explains why Russian speakers have a hard time distinguishing between /v/

and /w/, since, as they would put it, /w/ does not exist in Russian but the two sounds feel similar.

The implications native phonemic categories have on human speech perception fall under the domain of categorical perception, which states, in part, that we perceive sounds in distinct categories rather than on a continuum. Categorical perception is often seen as a crucial piece of human speech perception, yet, the current body of literature does not incorporate categorical perception in its efforts to model human speech perception. Thus, the focus of this paper is to compare two algorithms for predicting human discrimination; one using the standard approach (with no implementation of categorical perception), and another which incorporates an operationalization of categorical perception.

In this study, I simulate an ABX discrimination task using Dunbar and Millet's (2022) World Vowels corpus and compare these results with human responses using the same corpus. However, while humans have an intuitive understanding of what sounds feel similar to others and can give judgements related to this, computers rely on internal representations of speech sounds—arrays of numbers, which can be viewed as points in space—to interpret sound. Thus, a standard approach when modeling human discrimination tasks is to extract representations of sound files using computational speech models, and compare the distance between these representations in geometric space in some way. Moreover, Dunbar and Millet (2022) have shown that these distances between computational speech model representations correlate well with whether human participants answered correctly in an ABX task using the same stimulus.

I will use three computational speech models: MFCC, wav2vec2.0, and DeepSpeech2. MFCC is a model that only uses elements of the acoustic signal to extract its representation, this will be my baseline model. Wav2vec2.0 is a self-supervised model. Since it has no pretrained structure, it aims to uncover the underlying structure and patterns of the stimuli. Finally, I will use DeepSpeech2 model representations. DeepSpeech2 is a supervised model with an inherent phoneme classification step.

I operationalize categorical perception as classification vectors, which are extracted using a k-Nearest Neighbours (kNN) approach to express each sound as a vector representing how similar that sound is to native phonemes in a given language, here, English vowels. Compared to the standard approach, rather than computing the distance between the stimuli directly from the model representations of specific sound files, I compute classification vectors from the model representation files, effectively warping the distance between stimuli to account for phonemic categories, then compute the distance between the classification vectors.

This paper concludes that incorporating an operationalization of categorical perception, here, classification vectors, improves our predictions of human speech perception. Consequently, this implies that categorical perception is a crucial piece of human speech perception.

**9. Emerging Heritage Language Identities: A Case Study of Polish-Scottish Adolescents in Complimentary Schools**

Olga Sawczuk
*University of Edinburgh*

Heritage languages (HLs) significantly shape language identities, especially in regions experiencing high migration levels. In the United Kingdom, the Polish immigrant community, particularly children of immigrants, constitutes a prominent HL demographic, increasingly influencing the linguistic landscape (Burrell, 2009). Previous variationist research has often juxtaposed Polish-English bilinguals with monolingual English speakers (Drummond, 2012; Schleef et al., 2011; Ryan, 2021). However, there remains a gap in understanding the construction of heritage language identities from a more emic perspective. Studies of heritage language speakers are often conducted alongside an investigation into complimentary, or so- called 'Saturday', language schools (Creese et al., 2006; Cho, 2013; Leeman, 2015; Seals, 2018), which have proved to be a 'safe space' for the construction of adolescent identities (Wei, 2011). This study adopts an ethnolinguistic approach to investigate emerging Polish HL identities in Scotland, focusing on two Polish complimentary schools in and near Edinburgh. Through sociolinguistic interviews and fieldwork observations, the analysis reveals two predominant HL identity types: hybrid identity and migrant identity, contingent upon contextual factors.

This paper focused on data obtained in seven sociolinguistic interviews with Polish-Scottish adolescents supported by longitudinal fieldwork observations at two Saturday schools. Thematic analysis reveals recurring themes of space and place, social structures, and identity labelling, all of which are examined in relation to heritage language identity. Findings indicate that the hybrid HL identity thrives in Edinburgh's complimentary school environment, fostering balanced bilingualism and a unique Community of Practice (CofP) (Lave and Wenger, 1991; Eckert, 2000). Conversely, the migrant HL identity predominates in the school outside Edinburgh, emphasizing linguistic authenticity and individuality (Bucholtz, 2003). This study builds upon previous research on heritage languages' fluid and relational nature (Lee, 2005), offering nuanced insights into Polish-Scottish adolescents'; identity formation. Moreover, the study underscores the significance of physical and imagined linguistic spaces in shaping adolescent HL identities. Participants demonstrate a

keen awareness of language use across various physical spaces and actively construct their complimentary schools as nurturing environments for their hybrid HL identities, fostering a sense of belonging within a CofP. Lastly, the participants define their HL identities in terms of the domains of culture, family, and the sense of belonging, an observation which builds on the work of Janik (1996).

In contrast to hyphenated identities observed in the United States (Newlin-Łukowicz, 2015; 2016), this paper introduces the concept of a hybrid Polish-Scottish identity, allowing individuals to participate in both Polish and Scottish language communities without merging them into a separate identity. This research contributes to our understanding of HL identity dynamics and underscores the importance of contextual factors in identity formation processes. This paper concludes that complimentary schools play a key role in the development of these emerging HL identities and offer the perfect site for further ethnolinguistic and variationist investigation.

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10. **Word reading processing by bilingual speakers – Brazilian Portuguese and English with and without ADHD**

Débora Silva
*University of Porto*

This research examines bilingual volunteers with and without ADHD. We seek to explore the relationship between bilingualism and ADHD, based on the way bilingual people process word reading. BIALYSTOK et al., (2010), found a long-term effect between these two phenomena, the reduction of vocabulary in two or more languages, but the etiology of each of the phenomena is different. The origin of vocabulary loss for the bilingual individual is due to the “effort” to manage two or more languages, which may lead to improved executive control, which underlies working memory, task switching, planning and problem solving (KOVÁCS; MEHLER, 2009; SINGH et al., 2015). In contrast to the bilingual subject, individuals with ADHD have its loss of vocabulary because it is associated with weak executive control (BARKLEY, 2020;DIGIROLAMO et al., 2001; ING et al., 2007; SONUGA-BARKE; BITSAKOU; THOMPSON, 2010). We set out to investigate what would happen if the two phenomena were combined? Considering the possibility of an improved executive control for bilinguals and the deficit of ADHD, would it then be beneficial for the subject with ADHD if they were bilingual? Would bilingualism favor the processing of clinical word reading compared to monolingual individuals with ADHD? The hypothesis for our study is that bilingual participants with ADHD would perform equally to bilingual participants without ADHD. Participants were initially separated into two groups according to their linguistic proficiency in the L2 through the VLT (NATION, 1990) with a time limit of 10 minutes as proposed by Souza and Soares-Silva (2015). We carried out a self-monitored reading task of isolated words when the time spent reading the words and the correct answer to the final question were measured. The results indicated that bilingual participants with ADHD performed better on the experimental task, reading the first and second words in less time than the group without ADHD. Regarding the rate of correct answers, we obtained balanced responses between the groups, with no statistically

significant differences. In general, the results of the bilingual subjects with ADHD go against our hypothesis, that the groups with and without ADHD would have equivalent responses, but the group with ADHD was better, presenting evidence that points out to an improved executive control for the bilingual subjects.
Keywords: Linguistic Processing; Bilingualism; ADHD; Executive control.

11. **Testosterone and Fundamental Frequency: investigating the impact of testosterone hormone replacement therapy upon the fundamental frequency of transgender men's voices**

Eve Doherty
*University of Huddersfield*

For many transgender individuals, the voice, particularly pitch, is an aspect of dysphoria (Chadwick et al, 2022, p. 1615). In cisgender men, the average range of fundamental frequency for the voice is 50-250Hz compared to 120-480Hz for cisgender women (Fox, 2000, p. 183). For assigned female at birth (AFAB) transmasculine people prior to treatments, often the voice is incongruent with that expected of their gender (Schild et al, 2022, p. 164), with the voice being perceived as too high pitched. One effect of testosterone Hormone Replacement Therapy (HRT) in transmasculine people is a lowering to the fundamental frequency (f0) of the voice, the more objective, numerical counterpart to what is perceived as pitch (Hirst & De Looze, 2021, p. 336), an effect desirable to achieving gender congruence and reducing dysphoria (Chadwick et al, 2022, p. 1615).

This study investigates the questions: does testosterone HRT lower the AFAB transgender voice to a range comparable to cisgender men? At what stage of HRT does the f0 in the voice of a transgender man align with the range associated with cisgender men? This research is of value in providing clearer expectations for individuals prior to beginning HRT, allowing for more informed choices.

Prior research exploring the impact of HRT on the voice has been situated in the field of endocrinology (Cler et al, 2020). Acoustic phonetics provides a valuable contribution to this field of study, due to the shared phonetic basis of different aspects of voice, many of which are primarily facilitated by f0 (Fox, 2000, p. 273). The physiology of the vocal tract adjusts with changes from HRT; f0 considers the physiological impact and vibration of the vocal folds (Hirst & De Looze, 2021, p. 336), providing an appropriate avenue for linguistic contribution.

This study utilises videos sourced via social media, documenting the transition of 15 transgender men. An f0 measurement was obtained prior to starting HRT, and at the one, three-, six-, and twelve-month milestones, producing 75 data points. Praat was used to measure the diphthong /ɔɪ/ or the long vowel /i:/, both sonorant vowels that do not

obstruct the airflow (Hirst & De Looze, 2021, p. 341).

This study demonstrates a distinct drop in the f0 of all 15 participants, which is perceived as the individual having a lower voice. The accepted range for f0 in cisgender men is 50-250Hz, and 120-480Hz for cisgender women. All participants were within the range of cisgender men within twelve months of HRT. 80% of participants had an f0 below 120Hz, no longer within the cisgender woman range. The remaining 20% had an f0 below 185Hz, which can be considered gender ambiguous (Ziegler et al, 2018, p. 26). Acoustic analysis of f0 on the first year of testosterone HRT demonstrates that the AFAB voice lowers to a range comparable to that of cisgender men, and the majority of voices drop lower than the range associated with cisgender women, suggesting that testosterone HRT can be an effective method to reduce gender dysphoria in the voice.

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## 12. From Pixels to Print: A Multimodal Discourse Analysis in Anti-Child Abuse Campaigns


Alaa Mohamed

*University of Leeds*


Advertisement is a persuasive medium used to convince and influence the audience to take a certain action or buy a specific product. Advertisements are seen in newspapers, television, websites, radio, social media, and magazines. Campaign advertisement posters are one of the many types of mass media advertisements that infiltrate people's lives. It is a multimodal discourse that uses both verbal and nonverbal methods to convey meaning. This study used a multimodal discourse analysis technique to investigate anti-abuse

advertisements directed at children, distributed via both online and printed posters. To analyze the visual and linguistic parts of the posters, this study adopts an integrative approach using tools from different multimodal theoretical frameworks as Kress and Van Leeuwen's (2006) model of Grammar of Visual Design and Van Leeuwen's (2008) Approaches of Visual Representation of Social Actors, Machin&Mayr (2012) Lexico-grammatical Framework of Analysis of Visual Communication. Furthermore, the verbal tools used in the posters were examined using the same model of Machin and Mayr (2012). The study's findings reveal that both online and printed posters use a variety of semiotic resources to transmit anti-abuse messages, such as colors, pictures, fonts, and textual features. Posters also employ several language tactics to convince the audience to take action against abuse, such as direct demands, strong comments, and emotive pleas. This study also emphasizes the significance of evaluating the combination of semiotic and linguistic tools when determining the overall efficacy of posters. This study sheds light on the multimodal tactics employed in anti-abuse efforts, as well as the interaction between semiotic and linguistic tools in crafting the overall message.

**Keywords**: anti-child abuse campaigns- multimodal analysis- visual grammar

## 13. An OT Analysis of Romanian Metaphony

Izabel Ilie
*University College London (UCL)*

This paper provides an Optimality Theory (Prince & Smolensky, 1997) analysis of metaphony in Romanian that unifies seemingly disparate patterns using the set of AGREE[F] constraints (Bakovic, 2000; Eisner & Satta, 1999; Howe & Pulleyblank, 2004; Lombardi, 1999), simplifying Chitoran's (2002) analysis.

In Romanian, vowel harmony is responsible for diphthong reductions /ea/-[e] and /oa/-[o], /a/-[e] raising, and /ə/-[e] fronting. These patterns occur in inflectional and derivational environments (1).

(1)

| | Singular | Plural | Diminutive | Root |
|---|---|---|---|---|
| a. | *dʒeantə* | *dʒentsʲ* | *dʒentutsə* | 'purse' |
| b. | *poartə* | *portsʲ* | *portitsə* | 'gate' |
| c. | *pasəre* | *pəsərʲ* | *pəsərikə* | 'bird' |
| d. | *masə* | *mese* | *məsutsə* | 'table' |
| e. | *tabərə* | *tabere* | *taberutsə* | 'camp' |

Romanian displays long distance feature harmonising between the stem vowel and the suffix vowel. More generally, in these alternations, stem vowels lose their [+low] counterparts. However, notice how (1a-c) reduce in all environments, but (1d) acts differently, reducing in the diminutive but raising in the plural, and in the case of (1e), fronts.

The AGREE[-low] constraint competes with faithfulness constraints to attain the correct monophthongal surface forms (2).

(2) Deriving [dʒentsʲ] from /dʒeantsʲ/ 'purse' (pl.)

| dʒeant + i | IDENT-IO[e] | AGREE[-low] | MAX-V |
|---|---|---|---|
| a. dʒeantsʲ | | *! | |
| ☞ b. dʒentsʲ | | | * |
| c. dʒintsʲ | *! | | * |

(1d) raises its root vowel in the plural due to the constraint AGREE[+front] (3).

(3) Deriving /mese/ from [mase] 'table' (pl.)

| mas + e | AGREE[-low] | AGREE[+front] | IDENT-IO[a] |
|---|---|---|---|
| a. mase | *! | * | |
| ☞ b. mese | | | * |
| c. məse | | *! | * |

The (1d) diminutive form is driven by the AGREE[-front] such that the stem vowel agress in the feature [-front] with the first vowel in the diminutive suffix, /u/ (4).

(4) Deriving [məsutsə] from /masutsə/ ‘table’ (dim.)

| mas + utsə | AGREE[-low] | AGREE[-front] | IDENT-IO[a] |
|---|---|---|---|
| a. masutsə | *! | | |
| ☞ b. məsutsə | | | * |
| c. mesutsə | | *! | * |

This analysis models metaphony as agreement in height and frontness, formalised by the AGREE set of constraints. I therefore unify these three seemingly different processes, where Chitoran only analysises reduction patterns (1a-c). Moreover, my analysis uses a classic feature-based OT rather than the less popular and somewhat abstract Particle Phonology (Schane, 1984).

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## 14. Comparing humour production and evaluation in humans and ChatGPT-4


Kaleia Hills

*University of Birmingham*


Humour is often seen as a unique human trait, with many philosophical and linguistic scholars claiming it requires an understanding of cultural conventions so that they can be

effectively violated. Recent achievements in AI, such as ChatGPT-4, potentially throw these claims into question. How does ChatGPT-4 compare with humans in its understanding and production of humour? To test this, I posed humans and ChatGPT-4 with the same joke generation and evaluation tasks–based on prior linguistic theories of humour–and also replicated a word humour rating scale, from Engelthaler and Hills (2018), in ChatGPT-4. I created prompts based on The General Theory of Verbal Humour and the jokes produced by ChatGPT in Jentzsch and Kersting (2023). I collected jokes from both humans, between the ages of 18-30, and ChatGPT-4. I then had ChatGPT-4 and a different set of humans rate the jokes for humour on a scale from 1 to 5. Human jokes had higher variance in ratings than ChatGPT-4 with more jokes evaluated as 1 (not funny) or 5 (very funny). ChatGPT-4 rated itself and humans between 2-4, with ChatGPT-4 rating its own jokes as funnier. In my linguistic analysis, I found that human jokes break more of Grice's maxims and rely less heavily on language-level humour (puns), although language-level jokes remained the most frequent in the joke datasets for both ChatGPT-4 and humans. I found that ChatGPT-4 reuses a reliable formula to create jokes, whereas humans tend to write jokes in a variety of styles and lengths. My replication of Engelthaler and Hills (2018) humour norms is ongoing.

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## 15. Morphosyntactic processing in Hungarian L2 learners of English

Hajna Williams
*University of Cambridge*

A current psycholinguistic debate regards the nature of language processing among L1 and L2 speakers of the same language (MacWhinney, 2009). Can L2 learners attain native-like processing? What factors play a role? Answers to these questions are relevant because they have implications for mapping the functioning of the brain as well as for second language acquisition and thus teaching (van Hell, 2023). My research contrasted morphosyntactic processing among young adult highly proficient L2 learners of English whose L1 is Hungarian and monolingual L1 English speakers (controls). These languages are distinct linguistically and typologically, and such a language pair has scarcely been studied, especially in the context of bilingual morphosyntactic processing (Sagarra, 2023). The experiment focused on the processing of multi-word verbs (MWVs), which are difficult to master and represent one of the most salient differences between L1 and proficient L2 language use (Paulmann et al, 2015).

I employed a self-paced reading task (Marsden et al, 2018): the participants (n=32) read short texts containing English and ungrammatical (Hunglish) MWVs, during which their word-by-word reading times were measured. To ensure their focus on content, each text was followed by reading comprehension questions. Multiple-choice questions tested their explicit knowledge of the MWVs in the texts. This involved filling in a blank with the correct particle given the verb and the sentence context.

The results show that the L2 learners overall have significantly slower reading times and higher error rates on the questions compared to the native speakers. The performance of the Hungarian participants further show much greater variation, which can be explained by factors such as the amount of time spent in an L2-speaking environment. The control participants show a greater increase in reaction time from the violated item (the post-verbal particle) to the following word than the L2 learners, indicating that they were more sensitive to the syntactic violations than the native speakers.

Overall, the results may lead us to conclude that the differences in L1 and L2 processing are not fundamental, they can be explained by surface-level variation (MacWhinney, 2009).

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## 16. The Capacity of ChatGPT on Modal Subordination Through the Lens of Discourse Representation Theory

Chunxi Luo & Diya Goel
*University of Cambridge*

The inherent ambiguity of language presents a challenge to natural language understanding, with modal subordination being one such scenario. The scope of modals, especially those that codify certainty and possibility, gives language the ability to express hypothetical worlds through basic modal logic. This paper will compare the human understanding of modal subordination using Discourse Representation Theory, with the capacity of ChatGPT 3.5 to understand such ambiguity. This is done by asking ChatGPT 3.5

to choose the most appropriate proposition from a series of model universes exhibiting modal subordination. Our results will demonstrate that ChatGPT 3.5 tends to exhibit modal substitution rather than modal subordination, especially when a modal of certainty scopes over a modal of possibility. We will also propose a possible explanation for this behaviour

**17. Grammar is Against Humanity: How does grammatical incongruity in fill-in-the-blank joke constructions affect perceptions of humour?**

Bronwyn Way
*University of Sussex*

Incongruity theory is one of the reigning theories of humour, explaining why we find jokes 'funny' – its argument is that humour comes from the unexpected. Prior linguistic studies of humour focus on semantic incongruity, that is when the meaning of the 'punchline' is unexpected from the 'set up' of the joke (as is the case with puns and double entendres). However, this prior research does not explore other kinds of incongruity such as grammatical incongruity. Memes are a great contemporary example of grammatical incongruity in humour such as Jeremy Clarkson exclaiming "A Egg!" The question is raised, does the comedy come from his untraditional use of the consonant-predicating indefinite article *a* rather than the vowel predicating *an,* or the unexpected response? This project explores the relevance of grammatical incongruity for humour perceptions. Specifically, it seeks to understand if grammatical incongruity acts as a barrier to perceptions of humour or can intensify comedic effect. This project does so through a study using the popular party game Cards Against Humanity, with altered cards that create incongruous joke constructions. This research project takes into account than an in-person game of Cards Against Humanity comes with a variety of social factors that would affect someone's choice of card – for example the person selecting the winner, or the interpersonal relationships of people playing. To negate these factors, I use a digital questionnaire in which participants choose which cards they would find funniest, rather than which they think would be received well by others. They will also complete a self-rating scale on some of their choices, giving further insight into their reasons for their decision-making. Overall, it should provide a starting point for understanding how other kinds of incongruity affect humour perception, developing incongruity theory as a whole.

**18. How do stimulants affect L2 audio-processing in people with ADHD?**

Eleanor Streatfield
*University of Birmingham*

Stimulant medications are primarily used to treat Attention Deficit Hyperactive Disorder (ADHD), such as methylphenidate (e.g. Concerta XL and Ritain) and amphetamines (Adderall). These medications are designed to reduce the main symptoms of ADHD:

inattention and hyperactivity, though psychological and linguistic research indicates that stimulants can reduce audio-processing deficits associated with ADHD (Riccio and Hynd, 1996; McInnes et al., 2007). Information processing and inattention are greatly interlinked; stimulant medication improves the production of neurotransmitters in the synaptic cleft (Fostick, 2017) which, in turn, ameliorates the performance of information processing, amongst other cognitive tasks. In other words, the individual may experience a reduction in inattention and therefore increase in temporal processing. ADHD is associated with poorer linguistic functioning due to inattention and working memory (processing) deficits (Taitelbaum-Swead et al., 2019), though research suggests that speaking an L2 (bilinguals) may suffer from worsened linguistic processing, through executive control deficits, even if they do not have ADHD (Hardy et al., 2021). Moreover, bilinguals with ADHD have been shown to perform poorly at stop signal tasks compared to their monolingual counterparts (Bialystok et al., 2017; Bialystok, 2016), with ADHD being the main factor for this. This study aims to investigate the effect of stimulant medication on L2 audio-processing, in people with ADHD. Previous studies have developed a strong case for the use of stimulant medication, particularly methylphenidate, to aid audio-processing deficits, though conversely there is dispute between researchers: some argue that the medications solely reduce inattention and not audio-processing as both share similar neurological traits and that the latter may depend on the former (Wasserman et al., 1999; RICCIO et al., 1994). Nonetheless, there is considerable evidence to support the beneficial effect of stimulants in both children and adults with ADHD (Hale et al., 2005). The effects of audio-processing have been studied comparing bilinguals and monolinguals, ADHD and non-ADHD individuals and participants with and without stimulants, amongst various combinations of groups (e.g. bilinguals with ADHD vs non-ADHD), though no study as of yet has studied all three conditions. This study offers valuable insight into not only how stimulant medication can enhance audio and overall cognitive processing for people with ADHD, but how this affects speakers of an L2 too. In particular, what we can infer about the role audio-processing has on language learning (Saito et al., 2020), whether speaking an L2 worsens cognitive processing, and how educational settings can take learning styles into account for individuals with slower cognitive processing. Approximately ten students between the ages of 18-35 with ADHD, who speak and L2, will take part in this study. Five regularly take stimulant medication and five do not. Participants will carry out tasks similar to that of SCAN-A (Keith and Engineer, 1991), with four subtasks testing their ability to filter words and time taken to process audio clips. Expected results will likely reflect those from previous studies: participants who take stimulants are likely to show greater audio-processing advantages over their non-medicated counterparts, though bilingualism may reduce the disparity in results between the two groups as opposed to monolinguals with ADHD.

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## 19. Understanding Foreign Accent Perception: investigation into the interaction between speaker and listener factors

Laura Dolata
*University of Essex*

Speech is a rich and complex source of information about a speaker's identity. Even in the absence of visual cues listeners can discern a variety of talker's characteristics, including gender, age, social status, and plenty more (Bent et.al., 2016a; Jiao et.al., 2019). Accent is one such prominent feature, for it reveals details about a speaker's place of origin, be it regional or non-native pronunciation. Yet, classifying provenance from speech can trigger certain assumptions and stereotypes of the speaker's social and cultural affiliation (Dragojevic et.al., 2018; McKenzie, 2015) and those can have severe discriminative repercussions (Barrett et.al., 2022). Furthermore, the recognition of accents by listeners is not always accurate (see: Kanjee et.al., 2010 and Gnevsheva, 2018, p. 689), highlighting the necessity for a more profound comprehension of accent identification and categorisation patterns.

Previous research on foreign accent perception has focused primarily on intelligibility (e.g., Levy et.al. 2019; Bryła-Cruz, 2016; Stringer, 2015; Kanjee et.al., 2010; Bent et.al., 2016b), while work on identification has mainly addressed dialectal categorisation (e.g., Boughton, 2006; UK: Kreiman&Sidtis, 2011). Yet, there is comparatively less research on non-native accent identification (Gnevsheva 2018), McKenzie 2015 and 2019; Atagi & Bent 2016).

The present study investigates the perception of foreign accents, focusing on understanding and systematising the complex patterns involved in identifying the provenance of non-native English speakers by native English listeners. In order to delve into how phonological information is used to discern speaker characteristics, the research employs acoustic analysis to see how it interplays with the social characteristics of listeners and speakers. The study comprises two parts – 1) speech production and 2) speech perception. In the first part, non-native English speakers of specific origins are recorded, and their free-speech samples are then analysed with a particular focus on vowel quality. It is expected that the vowels will carry the greatest weight in revealing the speaker's provenance, given the complexity of the English vowel system among the world's languages. In the second part, native English Speakers from the UK are asked to identify the origin of the person from the prior-recorded speech samples, as well as decide in a discrimination task whether two speakers have the same origin or not. Listeners will also fill out a background questionnaire asking general questions relating to their experience and exposure to foreign accents. Considering that listeners are generally unaware of their decision-making processes, particularly in the realm of linguistic information processing, employing acoustic analysis is key in this study, since it will help identify the patterns of foreign accent identification that the human brain is subconsciously employing. By combining both background information on speakers and listeners, and detailed measurements of the speech listeners are exposed to, we aim to identify which are the most critical factors in native-non-native communication that determine accent perception.

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## 20. How Harmonious: Cross-linguistic Phonological Analyses of Vowel Harmony in Turkic Suffixation: Uyghur, Kyrgyz, Sakha (Yakut), and Gagauz

Matthew Hale
*University of Edinburgh*

The Turkic language family is renowned for both its highly enriched system of suffixation, as well as a noticeable presence of vowel harmony. At the same time, over 40 languages belong to the Turkic language family, and despite certain degrees of mutual intelligibility between each language, their systems of vowel harmony differ enough to warrant for phonological investigation. This project provides rule-based phonological analyses of vowel harmony patterns found in suffixation across four understudied Turkic languages: Uyghur (spoken in Western China, Eastern Kazakhstan and much of Kyrgyzstan), Kyrgyz (the national language of Kyrgyzstan), Sakha (formerly known as Yakut, spoken in the Sakha Republic in North Eastern Siberia), and Gagauz (spoken by a Turkic minority in Southern Moldova). The phonological phenomena observed in this project are: palatal (front/back) harmony, labial (round/unround) harmony, harmony directionality, and the interaction between dorsal fricatives and vowel harmony. Some of these patterns of harmony arise through feature filling rules, others arise through feature changing rules, whilst some derive through underspecification. In this project, each phonological phenomenon was analysed for each language, and phonological rules were posited, determining their feature filling/changing rules, or whether they came about through underspecification. These findings could have practical applications in computational linguistics and language-based models for machine learning. Similarly, this project can be used as a basis for further typological study regarding Turkic languages, including forming theoretically informed groupings of Turkic languages based on their vowel harmony structures.

## 21. “I’m on the way back from the game”: a corpus-assisted discourse study comparing pronoun use in the football phone-in ‘606’

James Berriman
*University of Portsmouth*

In this corpus-assisted discourse study, the linguistic environments of pronouns are analysed and compared in calls to the BBC Radio 5 Live football phone-in ‘606’. Phone-ins are a key component of the sport’s media landscape, allowing laypeople to debate with

professionals to a large audience (Thornborrow, 2001). Much linguistic research has been devoted to radio phone-ins generally, but most apply a conversational analysis framework to study programmes about politics or general societal issues (Bednarek, 2014). Some have used a corpus linguistics approach to find large-scale patterns in varying sizes of corpora (McCarthy & O'Keefe, 2003; Bednarek, 2014; Beeferman et al., 2019), but none of these collect data in British English, or from a football phone-in. Collocation and concordance corpus tools are utilised, allowing for a comparative analysis of 112 calls, not only comparing usage between pronouns themselves, but also how they are used differently by supporters whose teams won and lost. Pronouns were chosen for focus as recommended by both Roy (2013) and Bednarek (2014), who highlighted that they could prove interesting for analysis. Collocation results show that pronouns are used in constructions that fit into seven linguistic and thematic categories: adverbs, auxiliary verbs, modal verbs, address markers, communication markers, experience markers and opinion markers. The additional context provided by the concordance analysis shows that these can be simplified into just two purposes: constructing stance and building credibility. There is little difference in how credibility is invoked between the callers whose teams won or lost, but, as expected, the losers employ a more negative stance. The stance constructions incorporate a wide variety of pronouns, whilst credibility is primarily built through first person pronouns. The findings about stance were consistent with literature on the specific functions of pronouns (Xiang, 2003; Myers & Lampropoulou, 2012) and the theme of credibility is also corroborated in works concerning identity in radio phone-ins (Fitzgerald & Housely, 2002; Kilby & Horowitz, 2013; Chichon, 2020). I argue that stance is a principal element of calls in programmes where views on a subject are given. Credibility is also paramount, as callers qualify their stances and these pronoun structures invoke various identities to prove they have the expert credentials to comment on the topic. Fitzgerald & Housely (2002) note this clear link between these two functions in radio phone-ins, in line with the present study.

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## 22. A linguistic analysis of the Borderscape: signs of migration on the French-Italian border

Alessandra Terranova
*University of Edinburgh*

Linguistic landscapes provide us with a valuable insight into linguistic diversity, language barriers, boundaries, and the link between language use and identity. The role of language in the negotiation of power dynamics, agencies, and identities becomes particularly central in politically and socially contested areas (Themistocleous, 2020), multi-ethnic and multilingual centres, or in border zones along migrant routes (Faloppa, 2023). This study considers *borderscapes* as a fluid zone of multifaceted encounters and relationships, and explores them by looking at linguistic signs of migration in two areas of the French-Italian border, in particular along the mountain paths between Ventimiglia and Menton and between Clavi`ere and Brian¸con. .

The idea for this study, and the primary source of data, resides in the photography by Luca Prestia for the project 'Beyond the border. Migration and multilingual signs at European bor derscapes' (Prestia and Faloppa, 2022). The rest of the data used to construct the Linguistic Landscape in this study was collected through photographic stills available on the internet, from sources such as activist media and online newspapers, and from street-level images captured on Google Street View. I will analyse the signs both quantitatively and qualitatively, following the taxonomy proposed by Spolsky and Cooper (1991). Moreover, by applying Scollon and Scollon's (2003) Geosemiotics framework, this project aims to go beyond quantifying the number of languages: signs can only be understood when related to their placement in a social and cultural context.

The Linguistic Landscape of two areas along the border between Italy and France, in the proximity of Ventimiglia and Clavi`ere, present us with a stratification of information and languages. The signs come from a variety of sources such as activists, migrants, and organisations, and are directed towards multiple viewers: the people migrating, the authorities limiting their freedom of movement, the drivers along the roads they cross, and the wider society they interact with. Recomposing the wide array of signs and carefully analysing data through a precise framework such as the one introduced by Scollon & Scollon (2003) may lend us a new way to look at these borders and at the multiple human

and social dynamics shaping their Linguistic Landscape, where multilingualism is a possible mean to overcome cultural boundaries.

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## 23. "Yedin annem?" ("Have you eaten, my mother?"): on Absence/Presence of the Interrogative Polarity Particle in Cypriot Turkish

Arcin Celikesmer
*University of Glasgow*

My dissertation-level research investigates the syntactic evolution of Standard Cypriot Turkish (SCT) polar questions, focusing on the enigmatic historical disappearance of the Turkish interrogative polarity particle *-mI*, and its substitution by a rising intonation-triggering null morpheme I signify as [^]. The research explores the unique interplay between historical linguistic influences, language contact, and the syntactic changes in SCT that lead to the absence of *-mI* in favour of an intonation-based interrogative structure that is considerably irregular amongst varieties of Turkish, while developing a syntactic structure to represent the absence/presence of the interrogative polarity particle (IntPolQ).

I start my research by evaluating historical arguments for the deletion of *-mI* in SCT, considering both language developments internal to Turkish, and external influences from contact with Standard Cypriot Greek (SCG), amongst other in-island languages. My analysis considers linguistic contact's impact on the absence of polar question particles in SCT, proposing a model of syntactic transfer under contact. Historical evidence and linguistic parallels with Eastern Anatolian and Azerbaijani Turkish varieties are considered, further implying that SCT's intonation-based interrogatives may stem from in-island linguistic contact rather than language-internal diachronic changes, despite previous suggestions (Demir 2002; 2006).

To represent this, I propose a new syntactic structure for the absent *-mI*, employing Micheloudakis & Sitaridou's (2016; 2020) formal model of transfer. The Focus head is posited to host the null PolQ allomorph [^], triggering a rise in tone attached to the focused

constituent moved to Spec,FocP position. This proposal aims to reconcile and syntactically represent SCT's historical connection to Standard Turkish (ST) with its contact-induced syntactic changes, particularly the borrowing of intonation-based question constructions from SCG.

Furthermore, the study contends that *-mI* and [^] are allomorphs, both generating or moving to the Focus position, with particular emphasis on their syntactic constraints and their mutual exclusivity in certain constructions. Alongside the absences of *-mI*, my study explores the remnants of the IntPolQ particle in SCT, presenting further evidence for an allomorphic analysis. Discourse-strategic uses of *-mI*, such as markedness in open questions and verum focus constructions, are analysed to provide insight into the syntactic and discourse-pragmatic reasons behind the co-occurrence or exclusivity of *-mI* and the [^] trigger. The study finally examines cases where *-mI* remnants are observed in alternative questions with big disjunctions and embedded questions, revealing syntactic manoeuvres such as scrambling tactics, that enable SCT navigate around remnants in various constructions.

Overall, this project contributes to our limited understanding of the unique syntactic structure of SCT, illuminating the intricate inter-linguistic processes involved in the deletion of *-mI* and the adoption of an intonation-triggered null morpheme. The proposed allomorphic analysis of *-mI* and [^] provides a nuanced perspective on the syntactic and pragmatic roles of SCT interrogatives, emphasising the impact of historical linguistic factors and language contact on the evolution of interrogative structures in this unique language variety.

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## 24. Left or Right?: Perspective-taking of spatial cognition in adult monolinguals and bilinguals

Inés Lee
*University of Edinburgh*

Humans are adept at cooperative communication, demonstrating their capacity to resolve misunderstandings efficiently through pragmatic competence, encompassing context and the knowledge state of their conversational partners. Empirical studies by Keysar et al. (2000) and Epley et al. (2004) have unveiled the crucial role of perspective-taking in communication. People use this ability to correct their initial egocentric interpretations of context. It has raised questions about whether bilinguals surpass monolinguals in perspective-taking. Rubio-Fernandez and Glucksberg (2012) noted that bilinguals are quicker than monolinguals in redirecting their gaze during false-belief tasks. Similarly, Navarro and Conway (2021) adapted Keysar et al. 's (2000) director's task, revealing that bilinguals excel in conditions requiring level 1 perspective-taking and director consideration. These results raise the question of whether bilinguals' superior performance arises predominantly from enhanced executive control, or whether it can be explained in terms of sociolinguistic awareness.

This study investigates spatial perspective-taking in both adult monolinguals and bilinguals. The experimental design is influenced by the director's task originally developed by Keysar et al. (2000), albeit with some modifications. In this experiment, participants are presented with a 4x4 grid of objects and a picture of the target grid. They are then tasked with providing instructions to an opponent, who perceives the grid from a reversed left/right perspective, to rearrange the objects to match the target grid. This experimental setup places a substantial demand on participants' executive control, as they must consistently suppress their egocentric tendencies when issuing instructions and continuously adapt to the opponent's perspective. Building upon findings from previous perspective-taking studies (Epley et al., 2004; Navarro & Conway, 2021), I anticipate superior performance from adult bilinguals in this task.
Furthermore, I hypothesise that the results will underscore the role of enhanced executive control as a foundational mechanism contributing to the impact of bilingualism on perspective-taking.

In conclusion, perspective-taking is a dynamic and crucial element of communication. The transition from adult to child participants will allow me to explore the developmental aspects of perspective-taking. Understanding the impact of executive control and meta-sociolinguistic awareness in bilingualism is vital, and I aim to contribute to our understanding of the nuanced interplay between these factors.

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## 25. The super semantic-pragmatic interface of romantic haptics across power dynamics

Milo Campbell & Doul Ihze
*University of Edinburgh & University of Michigan*

Haptic communication is a type of nonverbal communication by which information is transmitted through interpersonal touch. Romantic relationships are a predominant setting of haptic communication given their reliance on physical touch. Individuals in romantic relationships are capable of conveying affective messages through unrestricted and highly intuitive touch between each other with impressive efficiency and consistency (Hauser et al., 2021). The mechanism of this unique communicative process remains poorly understood. Recent research, however, has managed to provide a quantitative account of the patterns of romantic haptics by using novel motion capturing techniques (Hauser et al., 2021; McIntyre et al., 2022). In this paper, we suggest that the categorization of this approach could serve as the basis for investigating romantic haptics from a linguistic perspective, specifically through the paradigm of super semantics (Schlenker, 2018).

A major challenge to the linguistic study of romantic haptics is the monotonicity of data given the assumption of a universal pattern of romantic interactions. We address this challenge with a typological stance by comparatively analyzing the stereotypical set of romantic haptics across relationship types, namely between "vanilla" and dominant/submissive (D/s) relationships. "Vanilla" relationships are characterized by monofacet, equalized power dynamics fixated by an implicit set of consent policies assumed through social conventions, which has been taken as the default setting of romantic haptics in previous approaches (Hauser et al., 2021; McIntyre et al., 2022). On the contrary, D/s relationships are characterized by unequal power dynamics with one side (the dominant) having significant control over the other (the submissive) in major aspects of the relationship, which nevertheless is settled using an explicit and mutually respected set of consent policies with strictly defined terms. Stereotypical physical interactions between D/s couples could be perceived as deviant and exaggerated from an outsider perspective

and are perhaps utterly unacceptable for "vanilla" couples without specific negotiation (Pitagora, 2013), but nevertheless express love and intimacy (Pitagora, 2013; Cutler et al., 2020). Assuming that couples of both types of relationships have similar conceptions of romantic communicative intentions, it is therefore interesting how the same set of semantic meanings are pragmatically expressed through vastly different and even contradictory haptics, thereby introducing preliminary typological data for super linguistic inquiry.

Primarily, the morphology of haptics consists of the physical attributes of standardized touch gestures and the point of contact of the gestures on the body, which follows a combinatorial structure (Hauser et al., 2021). Given the descriptive analysis of romantic relationships above, we hypothesize that this morphology indexes the same set of semantic meanings (as instantiated in romantic communicative intentions) through different patterns of data in each morphological unit across "vanilla" and D/s relationship, which can be analyzed in terms of pictorial semantics (Schlenker, 2018). Furthermore, the pragmatic meanings of the haptics are postulated by the participant's evaluations of social and affective contexts given the power dynamics of the relationship, which constrains the acceptable set of haptics. We conclude by proposing a potential formalization of this super semantic-pragmatic interface of romantic haptics.

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## 26. "Words We Use": A Narrative Inquiry into How Terms of Endearment Contribute to the Relationship Microcosm

Ellie Bostock-Smith
*University of Warwick*

Romantic relationships have long fascinated academics and artists alike, as many attempt to unravel this social phenomenon. The twentieth century saw relationships conceptualized as

microcosmic "mini-cultures", formed and sustained by 'symbols' of communication and identity (Baxter, 1987, p.262). 'Idiomatic communication' has been described as one of the most important symbols to contribute to relationship satisfaction (Hopper et al, 1981)(Bell et al, 1987)(Bruess & Pearson, 1993)(Afful, 2013). However, there is less research into how this trend manifests in the lived experiences of individuals. This study aims to fill this gap by investigating how young women experience terms of endearment in exclusive, committed, romantic relationships with male partners. Interviews were face to face and semi-structured; the questions were open ended, behaviorally or situationally led, and designed to invite narrative responses. Whilst previous research has acknowledged many forms of idiomatic communication within dyadic relationships, the present study will focus purely on 'terms of endearment' to facilitate the depth and detailed analysis of qualitative research. It will endeavor to answer the research question; how do terms of endearment contribute to the microcosm of a relationship? This question will be considered from sociolinguistic and psycholinguistic perspectives, as deductive coding shows manifestations of patterns theorized in previous scholarship. The primary contribution of terms of endearment to the relationship microcosm is through maintenance of equilibrium. Overt use of endearments can offer resolution when the relationship is under stress; consistent and ritualistic use of endearments can provide stability and support to aid in the longevity of the relationship; absence of a term of endearment disrupts the established equilibrium.

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## 27. Sociophonetic variation in filled pauses in Southeastern Australia

Liz Blackwell

*University of Cambridge*

This is a sociophonetic study, investigating how the fillers 'um' and 'uh' vary acoustically. My hypothesis is that duration, pitch, and formants of fillers may vary with the social factors of age, gender, and dialect. Despite their appearance across a swathe of European languages, "um" and "uh" have seen little sociolinguistic investigation. Existing research has mostly used transcribed corpora, looking at rate of filler production and proportion of 'um' versus

'uh' (Shriberg, 1996; Acton, 2011; Tottie, 2011). To date, studies of the acoustic features of fillers have either been crosslinguistic (Candea et al., 2005), or aimed towards forensic identification within a socially homogeneous corpus (Hughes et al., 2016). English-focused studies have had an Anglo-American focus, with global Englishes underrepresented. As sociolinguistic variables are oftentimes arbitrary in direction, it is not guaranteed that the same trends regarding rate and proportion will occur in all varieties.

This study uses a set of sociolinguistic interviews conducted by Debbie Loakes (University of Melbourne) in Warrnambool, a regional centre in Victoria, Australia. The interviews represent 28 speakers, either speakers of Standard Australian English (SAE) or Aboriginal Australian English (AAE). For this study, 1058 tokens of 'um' and 'uh' were isolated and acoustic parameter values extracted using PRAAT (Boersma and Weenink, 2023).

Statistical analysis was conducted in RStudio, using the package lme4 (Bates et al., 2015) to fit linear mixed effects models to the data. Results suggest that dialect and gender can both play a role in the vowel duration and vowel quality of 'um' and 'uh', although these trends may be obscured somewhat by intrinsic acoustic differences between fillers. These intrinsic differences are largely, though not entirely, congruent with those described for British English by Hughes et al. (2016). Differences in rate and proportion by gender and age were not found to be statistically significant, though this may be an artefact of the small number of speakers in the study. Therefore, though this study does suggest the possibility of socially conditioned acoustic variation in filler words, the extent of this variation remains to be uncovered by further research.

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## 28. Can Plausible Effects of Linguistic Relativism Be Visible in Bilinguals?


Ila Cibu

*University of Edinburgh*

This project will be focused on looking at the validity of linguistic relativism from the perspective of bilingual individuals in cognitive tasks such as number comprehension and color. I argue that there is a difference in the ways bilinguals conceptualize the world when compared to monolinguals.

Furthermore, the extent of this difference is dependent on the linguistic and cultural relationship between the languages themselves (Thomsen, 2023). For example, there may be more differences in cognitive profiles and perception between English-Chinese bilinguals compared to English-Spanish bilinguals. This can be explored via experiments involving cognitive tasks, such as colors, object and event descriptions and grammatical number marking (Athanasopoulos & Aveledo, 2012). This is different to the Conceptual Transfer Hypothesis (CTH), where CTH focuses on the effect of L1 languages on L2 speakers. Linguistic relativism largely concerns itself with effects of L1 and L2 in non-linguistic tasks in particular(Jarvis, 2011), as will be shown in this literature review.

'Cognitive', in this scenario refers to the testing of a particular conceptualization of a certain domain or system that may play a part in completing a task and should not be mixed with the general definition of cognition which refers to the "generation and processing of representations of internal states and/or the environment by biological or artificial systems" (Bohnemeyer, 2021, p.4). What is also important to note is that the differences in conceptualization will vary depending on the time period that the L2 is learned, the location of the speaker, the language spoken there and how long the speaker has spent in the location (Treffers-Daller, 2012). Due to this reason, the effects of conceptualization will vary, making linguistic relativism hard to test for and validate. However, there has been recent research into neuroscientific approaches in order to validate linguistic relativism with some success (Athanasopoulos & Cassaponsa, 2020) although more work must be done to accept or deny this evidence.

To conclude, this project will consist of a literature review examining and critiquing the extent of the Linguistic Relativity Hypothesis from past research and its influence on bilingualism from experiments on cognitive tasks to provide a comprehensive analysis of its status and possibilities for future research.

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## 29. Dissecting the Frog: Understanding ChatGPT's Sense of Humour

Matt Hayden
*Newcastle University*

As the popularity and furore grows surrounding large language models such as OpenAI's GPT series, it is important to recognise the areas in which these models still fall short. Various examples, such as those in Borji (2023), can be found displaying ChatGPT's failures in explaining jokes and humour. This is despite Brown et al (2020) showing state-of-the-art results on a number of benchmark tests. This study asks why these failures occur. As Borji (2023) notes, very little study has been done regarding the capability of large language models in comprehending humour. If the goal of such models is to produce speech as close to human-like as possible, then an understanding of humour will be key to achieving this. Through adopting an approach rooted in linguistic studies of humour in humans, namely the General Theory of Verbal Humour (GTVH) (Attardo and Raskin 1991), this study attempts to identify the specific areas in which ChatGPT fails. The GTVH posits that verbal jokes contain two scripts which overlap semantically but are fundamentally opposed in some way and thus cannot coexist. It is from the resolution of this tension that humour arises. This study hypothesises that ChatGPT's architecture should allow it to identify these overlapping but opposed scripts. The GTVH also presents 7 ways in which jokes can differ. ChatGPT was asked to identify the relevant scripts in 14 variations of 2 novel jokes designed, according to these 7 differences, to be maximally informative regarding the model's difficulties. Each variant was presented 5 times. The given answers were then qualitatively analysed on order to find larger patterns and communalities in the model's successes and failures. The results show that ChatGPT consistently failed to identify the relevant scripts. The model frequently appeared to assign importance incorrectly, often focusing too much on noun phrases or on patterns like seen a lot in its training data. This mirrors some results in Brown et al (2020), particularly those regarding the Adversarial Natural Language Inference dataset (Nie et al 2020), which also requires the identification of complex semantic relationships. There were further difficulties regarding spatial and physical reasoning, an issue highlighted in Borji (2023). Given these results, the hypothesis is falsified. It seems that ChatGPT struggles not only in explaining jokes but also at identifying complex semantic relationships. Despite this, the study did succeed in

identifying more specifically the shortcomings of ChatGPT which may in turn inform future work on the model.

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## 30. The Selection of Mandarin WH-words between Their Interrogative and Non-interrogative Readings

Rosalyn Xu
*University of Edinburgh*

In this study, I investigate the non-interrogative uses of Mandarin Chinese wh-words and their association with clause embedding patterns. Mandarin Chinese is a wh-in-situ language, meaning that wh-words remain in the same base position without moving. Wh-words in Chinese, such as *shenme* "what", *shei* "who", etc., can not only form a question with interrogative meanings but also denote non-interrogative meanings (Huang, 1982). The non interrogative use of wh-words received one of three types of interpretation: indefinite interpretation which typically occurs with negative polarity content, free choice interpretation which occurs in modalised sentences, and universal interpretation which is associated with the marker *dou* (Liao, 2011). Meanwhile, Mandarin displays a similar selection restriction of predicates as English clause embedding predicates. When embedding with complementation, predicates can take clauses with different semantic types. For instance, *know* takes both declarative and interrogative complements, while *wonder* merely takes interrogative complements and *believe* merely takes declarative complements (Uegaki, 2019). Therefore, while the interpretation of wh-words is closely related to the context in which wh-words occur and the type of what they are, the predicate selection restriction provides insights for understanding the interpretation selection between wh-question and wh-existence. For instance, a positive episodic sentence like the complement clause *Alice mai-le shenme* in (1), which alone is infelicitous with a wh-existence reading, can be interpreted as a declarative complement. On the other hand, it can denote question meaning in (2) with the co-occurrence of *xiangxin.*

(1) Bill xiangxin Alice mai-le shenme.

Bill believe Alice buy-Asp what

Bill believes that Alice bought something.

(2) Bill xiangxin Alice mai-le shenme?

Bill believe Alice buy-Asp what

What does Bill believe that Alice bought?

Through my analysis, I argued that Mandarin wh-words in non-interrogative uses behave like polarity-sensitive items (PSI). It is supported by empirical evidence of their appearances in environments specific to negative polarity items and other circumstances as free choice items, such as contexts where the proposition's truth value is not asserted. Therefore, a diagnosis to distinguish a wh-word as a wh-PSI is by adding an ignorance incompatible constituent while the utterance remains felicitous. Furthermore, for wh-words which can denote either question interpretation or existential interpretation, these wh-words must be the contrastive focus of the utterance when used with an interrogative interpretation (Haida, 2008). Wh-words can be focused or un-focused when used with non-interrogative readings. Thus, the contextual cues indicating the focus of the utterance are significant for the interpretation.

In sum, the selection between interrogative and non-interrogative use of Mandarin wh-words is the interface between syntax, semantics, and pragmatics.

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## 31. Prosodic Features in Emotional Speech of Chinese Patients with Parkinson's Disease

Bomiao Zhang

*University of Manchester*

Speech disorder is widely observed in patients with Parkinson's Disease (PD), a neurogenerative disease caused by neuronal loss in the part of the brain which controls movement. The patients are often observed with noticeable impairment in phonation, articulation and prosody. Previous studies show that dyprosody in PD speakers, with prosodic features like decreasing pitch range, smaller intensity variations and various

changes in speech rate, would result in hampered ability in conveying specific affective or linguistic meanings, affecting their production of emotional prosody. Investigating into the prosodic features of PD speakers will have a clearer explanation of how it was affected through dysprosody. This study collects the proverbial sound of Chinese PD speakers in different emotional contexts, where 13 Chinese patients with Parkinson's disease and 4 healthy control groups were selected to produce emotional speech in four different contexts (angry, happy, sad, neutral), through scene-inducing reading tasks. Measuring the prosodic features through acoustic analysis, a slower speech rate in anger utterances and a rise in F0 for the first half of non-neutral utterances in PD patients was found.

**Keywords:** Emotional speech; Parkinson disease; Prosodic feature; Pitch contour

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## 32. The Perception and Access of Written Silence

Dezhi Luo
*University of Michigan*

It has been demonstrated that auditory silence can be perceived the same way as we consciously perceive sound (Goh, Phillips, & Firestone, 2023). This paper proposes that similarly, written silence (Ephratt, 2008) can be perceived the same way as we consciously perceive semantic information. Through an introspective method (Michel, 2017), this paper shows that the absence of semantic cues from a phenomenal field in which semantic information is expected can induce involuntary conscious access/reflection (Block, 2001; Snodgrass & Lepisto, 2007), instantiated in pragmatic inference based on preceding context.

**Keywords:** neurolinguistics, philosophy of language, written silence, conscious perception, pragmatics

**Appendix:**

The frame-general design for the introspective task is as follows:

(The Above Section Was Intentionally Left Blank)

Description: Essentially, the construct of the trial is to present an absence of semantic information in a information-carrying frame (e.g. a sheet of paper/slide/poster) that is unexpected given the description that introduces the task domain, which can fit into different formats of presentation (e.g. an empty slide following a cue indicating that something is going to be explained in the following side).

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## 33. The stories of our lives: Evidence from parametric syntax, phylogenetics, and language contact

Eve Canning

*University of Cambridge*

The identification of genetic relationships between languages, commonly visualised using phylogenetic trees, has been a major goal for the field of (historical) linguistics since at least the late 18th century. Campbell and Poser (2008: 162-224) describe how this has traditionally been done by scrutinising languages' lexicons to identify cognate items and derive sound correspondences, with only a minor focus on morphological evidence, and, as noted by Clackson (2022: 2), virtually no attention whatsoever paid to syntactic evidence. This work has been aided in the 21st century by computational methods for the inference of phylogenetic relationships. The majority of work which has employed these computational methods has been based entirely on the cognacy of vocabulary items, and while these lexical studies have often yielded interesting and useful results, they deal with only one aspect of language. Furthermore, their scope and depth is limited by the relative ease with which even core items of vocabulary can be lost or borrowed (see Thomason and Kaufman's (1988) 'borrowing scale'). The Parametric Comparison Method (PCM; an overview of which can be found in Longobardi and Guardiano, 2017) uses a set of syntactic parameters which account for cross-linguistic variation in order to generate phylogenies on the basis of languages' syntax rather than their lexicons. This method has proven effective at returning phylogenies which closely match those retrieved through traditional methods (Ceolin et al., 2020). However, with the exception of Neureiter et al. (2022), almost all previous efforts at computational phylogenetics have disregarded language contact rather than trying to investigate it.

In order to explore whether evidence of language contact can be found in syntactic phylogenies generated through the PCM, I combine the nominal parametric database of Ceolin et al. (2021) and the clausal parametric database of Baker and Roberts (forth.). This is the first time nominal and clausal parameters have been taken together to generate phylogenies, which I examine both for their adherence to traditional phylogenies and for evidence language contact leading to syntactic transfer in the histories of Celtic, Germanic, and Romance (informed by Bowern's (2008) proposals for the identification of syntactic transfer). My research suggests that parametric syntactic data can provide evidence of language contact, particularly in the case of Germanic. However, this is generally quite subtle, and requires careful examination not just of phylogenies but also of individual parameter settings. I argue that models of linguistic history, including those based on syntax, should always take care to consider language contact and incorporate it where appropriate, as language contact is an essential component of the story of any speech community. Such an approach promotes an understanding of human history which includes not only divergences which separate groups from each other, but also convergences which result from conquest, collaboration, and all other kinds of contact.

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## 34. Dutch Sign Language Does Not Have Syllables

Juliette van Steensel
*UCL*

This paper argues that Dutch sign language (*Nederlandse Gebarentaal*, NGT) does not have syllables as currently defined in sign language. Early research into sign language phonology focused on the ability of signs to execute phonemes simultaneously, a property unique to sign language. When research shifted to investigating segmental organisation in sign languages the syllable became a popular topic of study.

Syllables appear to be universal in spoken language. The same has been argued for sign language (Brentari, 1998; Sandler, 1989). Chinchor (1978) first analogised the location at which a sign is executed to consonants, and the movements between locations to vowels. Perlmutter (1992) further argued that this structure, location-movement-location (LML) constituted a syllable. Through analogy with spoken language consonants and vowels, the canonical sign syllable LML was born.

Brentari (1998) argued the need for a sign syllable as a unit of analysis. She argued for a number of constraints in ASL that necessitate the sign syllable in the form of LML. Such constraints include a requirement for movement in a well-formed sign, constraints on what types of movements can co-occur in a sign syllable, and restrictions on phonological processes like reduplication.

This paper argues that data from NGT poses problems for the current formulation of the sign syllable. NGT signs do not require a movement to be well-formed. Additionally, there do not seem to be movement-based restrictions on reduplication in NGT that necessitate the sign syllable as currently defined. If the syllable is not necessary as a unit of analysis in NGT, this suggests there is no universal need for a syllable in sign languages. This raises the question of whether the current idea of the sign language syllable needs to be reconsidered.

The focus on analogy to spoken language phonology and the lack of research into the production and perception of sign languages are symptomatic of a rift between phonetics and phonology. Sandler (1986) proposes a constraint on signs $*L_1L_2$, which states that two non-identical adjacent locations are not permitted. This is an unnecessary phonological solution to a physical constraint: the hand cannot be at one location on the body, and then at the other, without some kind of movement connecting them. Thus, this paper argues for an approach to sign language phonology that how phonological organisation may from phonetic properties, rather than through forced analogy with spoken language phonology.

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## 35. The influence of sign language acquisition on visuospatial perspective-taking

Lydia Wiernik
*University of Edinburgh*

A growing literature in sign language linguistics and deaf linguistics has begun to separate what characteristics of non-linguistic task performance are attributable to deafness and what is instead a result of the acquisition of a sign language itself. Hearing signers, those who are bilingual in both a signed and spoken language, provide a great resource to distinguish these variables. Facial recognition (Bettger, Emmorey, McCullough & Bellugi, 1997), emotion identification via facial expressions (Goldstein et al., 2000), image generation and mental rotation (Emmorey, Kosslyn & Bellugi, 1993), and temporal processing (Stroh et al., 2022) are four non-linguistic abilities shown to be directly influenced by the acquisition of a signed language. In all four studies, hearing signers

performed more similarly to deaf signers than hearing non-signers, or produced results between those of the deaf signer and hearing nonsigner groups. This suggests that many non-linguistic abilities can be shaped by sign language acquisition, perhaps alluding to a difference in cognitive processing between signers and non-signers that is influenced by acquisition itself. Though many non-linguistic abilities once ascribed to deafness have been shown to be influenced by the acquisition of a signed language, determined using hearing signers as a participant group, one ability that has not been tested in this regard is visual-spatial (or visuospatial) perspective-taking (VSPT).

Secora and Emmorey (2019) investigated VSPT in deaf signers and hearing nonsigners, replicating Clements-Stephens et al.'s (2013) VSPT task design as well as included a perspective-taking spatial orientation test and a mental rotation task. Their results showed that the deaf signing and hearing nonsigning groups performed almost identically in terms of accuracy and reaction time (RT). However, there was a difference in the correlation between their accuracy and AQ scores; hearing non-signers with lower AQ scores (more social) performed better on the VSPT while deaf signers with higher AQ scores (less social, more visual/perceptual) performed better. Secora and Emmorey (2019) suggests this may highlight a difference in how participants cognitively went about the task.
Unravelling these cognitive differences is the purpose of the present dissertation. This study is a novel replication of Secora and Emmorey (2019) which uses hearing signers for the first time in this context, and uses a digital VSPT task, which has not been implemented before. The study has four aims. In order of scope, from narrow to broad:

I. To provide more context for the performance of Secora and Emmorey's (2019) deaf participant group
II. To investigate how sign language experience in hearing individuals influences cognitive strategies used during a VSPT task
III. To suggest a cognitive focus on non-linguistic task performance, rather than quantifying differences between the deaf and hearing based on task accuracy
IV. To contribute to the literature separating the effects of deafness and the acquisition of a signed language and perhaps recontextualise past results or claims

The online experiment was coded in JavaScript, and all 3D models were hand-made in SketchUp. Results are analysed using descriptive statistics and are informed by a Crip Linguistics (Henner and Robinson, 2023) framework.

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