**44. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft**

**23.–25. Februar 2022**
**Universität Tübingen**

# Tagungsband
# Conference Booklet

Sprache verpflichtet!

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Deutsche Gesellschaft
für Sprachwissenschaft

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

# 44. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft

## Sprache verpflichtet!

### 23. – 25. Februar 2022

Eberhard Karls Universität Tübingen

# 44th Annual Conference of the German Linguistic Society

## My word is my bond!

### 23 – 25 February 2022

University of Tübingen

## 44th Annual Conference
## of the German Linguistic Society (DGfS)
## Tübingen (online), 23.-25.2.2022
## Code of Conduct

By entering and participating in any events related to the DGfS 2022 conference, you agree to assist in creating a space free from any form of discrimination or violence in the context of DGfS 2022. This includes behavior exhibited on the virtual platforms we use (Zoom and Gather).

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Mascha Averintseva-Klisch:
maria.averintseva@uni-tuebingen.de
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Please be assured that your concerns will be kept in strict confidence, and we will consult with you on any actions taken.

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Slavica Stefanovic

### Computational linguistics poster session
Timm Lichte

Rainer Osswald

### Computational linguistics tutorial
Christian Bentz

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### PhD student forum
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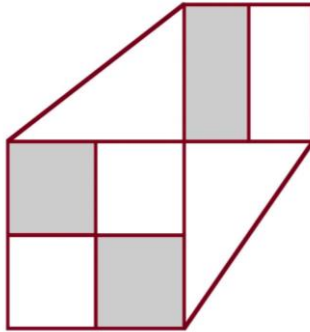


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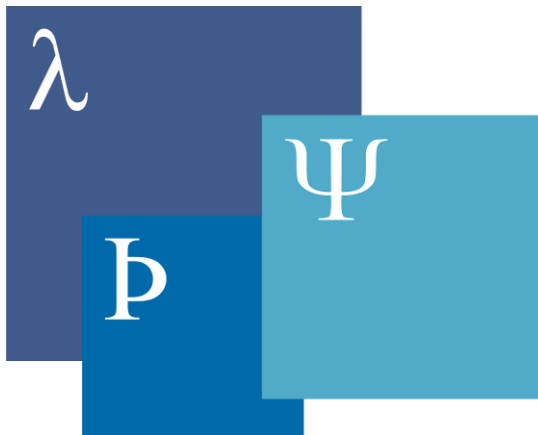


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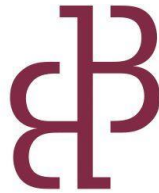
# Venue

The 44th DGfS annual conference 2022 will take place **online**.

We will be using **Zoom** and **gather.town** for the conference.

Please ensure that you have the most recent version of Zoom. gather.town can be accessed via your usual internet browser.

The core conference events will be hosted on Zoom. These are: the opening address, the plenary talks, the workshop sessions, the award ceremonies of both Wilhelm von Humboldt prizes, the general meeting of the DGfS, the PhD student forum, and the Computational Linguistics tutorial.

The Computational Linguistics poster session and personal meetings with publishers at virtual book tables will take place on gather.town. Although the publishers' book tables can be visited at anytime on gather.town, these tables will be manned only at scheduled times on Thursday 24 Feb (see the Conference Program for times).

Note also that workshops have dedicated seminar rooms on gather.town, via which workshop participants can access talks (through Zoom) and interact between talks.

We are planning digital conference lounges on Zoom and/or gather.town. These will be announced via the DGfS 2022 website. We warmly invite you to use our platforms for informal conversations with other participants!

**Please note:** For security reasons, we will not publish the links to these events on the conference website. We will send registered participants the necessary Zoom and gather.town links, as well as detailed information about using gather.town, shortly before the beginning of the conference via email.

# Contents

# Part I

## Schedules and events

# Conference program

## Tuesday 22 Feb 2022

| | |
|---|---|
| from 08:30 | ALP annual conference (Pragmatik multimodal) |
| 10:00 - 17:00 | Computational Linguistics tutorial |
| 15:00 - 18:00 | PhD student forum |
| 15:00 - 18:30 | Info/Helpdesk |

## Wednesday 23 Feb 2022

| | |
|---|---|
| from 08:00 | Info/Helpdesk |
| 09:00 - 09:30 | Conference opening and welcome address |
| 09:30 - 10:30 | Plenary talk: Elin McCready (Tokyo) *Binding and being bound* |
| 10:30 - 11:00 | Awarding of the Wilhelm-von-Humboldt prizes (lifetime achievement award and dissertation award) |
| 11:00 - 11:30 | *Break* |
| 11:30 - 12:30 | Plenary talk: Heather Burnett (Paris) *Pragmatic Sociolinguistics: Formalizing the social world* |
| 12:30 - 13:45 | *Lunch* |

| | |
|---|---|
| 13:45 - 15:45 | Workshop sessions |
| 15:45 - 16:30 | *Break* <br> Computational Linguistics poster session, part 1 |
| 16:30 - 18:00 | Workshop sessions |
| 18:00 - 18:30 | *Break* |
| 18:30 - 19:30 | Plenary talk: Penelope Eckert (Stanford) <br> *Truth and social meaning* |
| from 20:00 | *Digital conference lounge* |

## Thursday 24 Feb 2022

| | |
|---|---|
| 09:00 – 10:30 | Workshop sessions |
| 10:30 - 11:15 | *Break* <br> Computational Linguistics poster session, part 2 <br> Personal meetings with publishers at the virtual book tables |
| 11:15 - 12:45 | Workshop sessions |
| 12:45 - 13:45 | *Lunch break* <br> Personal meetings with publishers at the virtual book tables |
| 13:45 - 14:45 | Workshop sessions |
| 15:00 - 18:30 | General meeting of the DGfS |
| from 19:00 | *Digital conference lounge* <br> • 19:30 DGfS PubQuiz (German) <br> • 19:30 Digital Tübingen tour (English) |

## Friday 25 Feb 2022

| | |
|---|---|
| 10:00 – 11:00 | Plenary talk: Arnulf Deppermann (Mannheim) *The normative order of talk-in-interaction: Expectation and obligation vs. scopes for choice and negotiation* |
| 11:00 - 11:45 | *Break* |
| 11:45 - 14:15 | Workshop sessions |
| 14:15 | *End of the conference* |

# SAVE THE DATE!

## *Performative Zugänge zu DaZ und Sprachbildung im Fach*

Die Deutsche Gesellschaft für Sprachwissenschaft (DGFS, https://dgfs.de) führt jährlich eine große, internationale Tagung durch. Den Auftakt bildet immer ein **Informationstag für die Schule** mit zahlreichen Fortbildungsangeboten für Lehrkräfte. Der Informationstag für die Schule der DGFS fungiert als Brückenbauer zwischen Sprachwissenschaft und pädagogischer Anwendung. Im Fokus des Informationstages der Jahrestagung 2022, die in Tübingen stattfinden wird, stehen *Performative Zugänge zu DaZ und Sprachbildung im Fach*. Es werden insgesamt acht praxisorientierte Workshops angeboten sowie ein Plenarvortrag.

## Programmüberblick

| | | |
|---|---|---|
| 1 | Performativ-ästhetische Dimensionen des generativen Schreibens (→ Deutschunterricht, 4.-6. Klasse) | Alexandra L. Zepter (Universität Köln) |
| 2 | Kaleidoskop der Bedeutungen: eine interaktive Metaphernwerkstatt (→ Deutschunterricht, Sekundarstufe) | Laura Bon & Irene Rapp (Universität Tübingen) |
| 3 | Wir werden Wortbaumeister*innen: Grammatikunterricht mit Klemmbausteinen (→ Deutschunterricht, 5.-7. Klasse) | Helga Gese (Universität Tübingen) |
| 4 | Text-Theater: Performativer Umgang mit Literatur (→ alle Sprachenfächer, Sek I und II) | Nadine Schlockermann (Universität Freiburg) |
| 5 | Handlungsorientierter Sprach- und Schriftgebrauch (HOSS) (→ VKL, alle Schulformen) | Heike Bischoff & Doreen Bryant (Universität Tübingen) |

| | | |
|---|---|---|
| 6 | Der Einsatz von Rhythmus und Stimme in der Förderung von Deutsch als Zweit-sprache<br>(→ VKL, alle Schulformen) | Birgit Gunsenheimer<br>(Universität Köln) |
| 7 | Dramagrammatik: Einsatzmöglichkeiten und Variationen<br>(→ alle Schulformen, inkl. Berufsschulen) | Doreen Bryant &<br>Petra Schappert<br>(Universität Tübingen, Lehrerseminar Stutt-gart, SAF (BS)) |
| 8 | Bildungssprache im naturwissenschaftli-chen (Sach-) Unterricht fördern<br>(→ GS, Übergang zur Sekundarstufe) | Benjamin Siegmund<br>(Universität Tübingen, Gymnasium Stauffen) |
| **Plenarvortrag**<br>Argumentation live! Debattieren lernen und unterrichten | | Ansgar Kemmann<br>(Leitung Jugend debat-tiert, Frankfurt) |

Pandemiebedingt findet die Fortbildungsveranstaltung nicht im Februar statt, sondern wird auf den Juni verschoben. Die gebührenfreie Veran-staltung wird am Nachmittag / Abend des 24.06.22 in der Universität Tübingen (Wilhelmstraße 50) stattfinden. Es werden jeweils vier Work-shops parallel angeboten. Der Plenarvortrag ist für den frühen Abend vorgesehen.

Wir bitten um eine unverbindliche Voranmeldung unter: mehrsprachig-keit@ds.uni-tuebingen.de

Prof. Dr. Doreen Bryant &
Prof. Dr. Björn Rothstein
(Organisationsleitung  DGFS-Informa-tionstag für die Schule)

# ABSTRACTS

## Performativ-ästhetische Dimensionen des generativen Schreibens

Alexandra L. Zepter (Universität Köln)

Beim generativen Schreiben verfassen Schüler*innen Texte auf der Basis einer Vorlage, die im Rahmen von kreativ-spielerischen Prozessen mehr oder weniger verändert und erweitert wird. Die Arbeit an der Vorlage ermöglicht inklusive Lerngelegenheiten, die ein implizites Lernen vorgegebener grammatischer Konstruktionen (z.B. Kasus in der Nominalgruppe, Verbflexion) fördert. Dabei können Schüler*innen unabhängig von ihrem jeweiligen Lernstand im Deutschen die lernmotivierende Erfahrung machen, vollständige Texte zu verfassen. Die impliziten sprachlichen Lernprozesse lassen sich zusätzlich durch performativ-ästhetisch orientierte Aufgaben unterstützen, bei denen die Textvorlage und/oder die selbst geschriebenen Texte mündlich und unter Einsatz des gesamten Körpers inszeniert und vorgetragen werden. Der Workshop richtet sich an Lehrkräfte und Lehramtsstudierende im Fach Deutsch und stellt dazu unterschiedliche Zugänge vor, die die Teilnehmenden auch selbst erproben. Im Fokus steht die Einbindung in den Deutschunterricht sowie den Sprachförderunterricht bei Deutsch-als-Zweitsprache in der 4.-6. Jahrgangsstufe.

## Kaleidoskop der Bedeutungen: eine interaktive Metaphernwerkstatt

Laura Bon & Irene Rapp (Universität Tübingen)

Metaphern eröffnen – gerade in der Literatur – oft verschiedenste Interpretationsmöglichkeiten. Dies ist unter anderem darauf zurückzuführen, dass in der Metapher zwei unterschiedliche Konzepte in eine dynamische Interaktion miteinander treten, wie z.B. bei „Das Leben ist ein Karussell". Inwiefern könnte das Leben als Karussell betrachtet werden? Welche Gemeinsamkeiten könnte es zwischen Karussell und Leben geben? Und was unterscheidet diese Metapher von anderen wie „Das Leben ist ein Spiel" oder „Das Leben ist eine Grießsuppe"?

Der Workshop soll Anregungen für eine Verknüpfung von Sprach- und Literaturunterricht im Bereich der Metaphernanalyse und -

interpretation geben sowie zu einem zugleich analytischen und kreativen Umgang mit lyrischen Texten im Unterricht einladen. Ein Schwerpunkt besteht darin, die Stilfiguren im Rahmen von Übungen zum literarischen Schreiben zu erproben.

Dem Kaleidoskop der Bedeutungen, das Metaphern eröffnen, möchten wir somit mit einem bunten Spektrum verschiedener Zugänge begegnen.

## Wir werden Wortbaumeister*innen: Grammatikunterricht mit Klemmbausteinen

Helga Gese (Universität Tübingen)

Wie kreativ und dynamisch die deutsche Sprache ist, zeigt ein kurzer Blick auf die Kandidaten für das Wort des Jahres 2020: *Corona-Pandemie*, *Verschwörungserzählung*, *Geisterspiele* – diese und andere Wörter stehen beispielhaft für eine Reihe an Wortschöpfungen, die uns das letzte Jahr beschert hat. Gemeinsam haben diese Wörter nicht nur das Thema, sondern auch die Bildung: Es handelt sich mehrheitlich um zusammengesetzte Wörter, um Wortbildungsprodukte. So dynamisch Wortbildung im Deutschen ist, so viele Möglichkeiten gibt es, dieses grammatische Thema im Deutschunterricht kreativ und spielerisch zu erarbeiten. Anders als existierende Vorschläge zur spielerischen Thematisierung von Wortbildung im Deutschunterricht (s. *Praxis Deutsch* 271/2018) setzt das hier vorgeschlagene Modell aber nicht auf einzelne, unzusammenhängende Wortbildungsspiele, sondern auf einen durchgehenden spielerisch-kreativen Zugang zu Wortbildung. Hierbei entdecken Schüler*innen der Klassenstufen 5-7 die Wortbildungsmuster des Deutschen durch das Bauen, Vergleichen und Bewerten von Bausteinmodellen. Sie werden Wortbaumeister*innen.

## Text-Theater: Performativer Umgang mit Literatur

Nadine Schlockermann (Universität Freiburg)

Der theatrale Umgang mit Literatur macht Texte lebendig und spricht die Lernenden kognitiv und emotional an. Das Textverständnis wird dadurch gefördert und die Lesemotivation gesteigert. In diesem interaktiven Workshop nähern wir uns literarischen und nicht literarischen Texten aus theaterpädagogischer Sicht. Im Zentrum steht die Erfahrung des

Mehrwerts im performativen Umgang mit Literatur und der Auseinandersetzung mit dem geschriebenen Wort auf ganzheitlicher Ebene. Alle theaterpädagogischen Methoden, die vorgestellt und ausprobiert werden, können direkt im eigenen Unterricht zum Tragen kommen. Der Workshop richtet sich an Lehrkräfte aus dem (Fremd-)Sprachenbereich sowie Interessierte anderer Fächer.

## Handlungsorientierter Sprach- und Schriftgebrauch (HOSS)

Heike Bischoff & Doreen Bryant (Universität Tübingen)

Vorgestellt wird eine für Kinder und Jugendliche mit nichtdeutscher Herkunftssprache und geringen Deutschkenntnissen entwickelte Methode, die das Herstellen eines konkreten Produkts mit Planung, Durchführung und Reflexion als Anlass nimmt, um körperliches und sprachliches Agieren zu verknüpfen und durch gezielte Inputstrukturierung und Outputgenerierung Wortschatz und Grammatik aufzubauen und zu festigen. Nach kurzer Einführung in die sprachdidaktischen und erwerbstheoretischen Grundlagen wird eine HOSS-Unterrichtseinheit in Auszügen simuliert und reflektiert. Ziel des WS ist es, die Methode und ihre Potenziale so kennenzulernen, dass sie sofort eingesetzt werden kann. Eine Reihe von bereits entwickelten Materialien soll den Einstieg in die Arbeit mit der Methode erleichtern.

## Der Einsatz von Rhythmus und Stimme in der Förderung von Deutsch als Zweitsprache

Birgit Gunsenheimer (Universität Köln)

In diesem Workshop geht es um den Zusammenhang zwischen Musik, Rhythmik und Bewegung einerseits und sprachlicher Entwicklung andererseits. Musikalisch-rhythmische Aktivitäten werden bereits in der Kita mit Sprachförderung verbunden. Bewegtes Lernen in der Kombination mit Musik spricht viele Sinne an, wirkt motivierend, weckt Interesse und fördert das soziale Miteinander. In diesem Workshop geht es darum, wie sich Musik und Bewegung insbesondere mit Zweitsprachförderung verbinden lässt. Nach einem kurzen Überblick über Inhalte, Ziele und Methoden geht es in die praktische Erprobung. Spiele, Rhythmicals und der Einsatz der Stimme werden mit verschiedenen Schwerpunkten des Spracherwerbs verbunden. Innerhalb der abschließenden

Reflexionsphase wird überlegt, wie aus den kennengelernten Rhythmen, Liedern und Bewegungen ganze Unterrichtseinheiten entstehen können.

## Dramagrammatik: Einsatzmöglichkeiten und Variationen

Doreen Bryant (Universität Tübingen) & Petra Schappert (Lehrerseminar Stuttgart, SAF (BS)

Nur allzu oft wird Grammatik als etwas mühsam zu Erarbeitendes erfahren. Dabei lassen sich grammatische Strukturen mit interessanten Inhalten verbinden und in theatrale Kontexte einbetten, sodass sie auf anschauliche Weise in ihrer Funktion wahrgenommen, im Spiel mit hoher Motivation verwendet und aufgrund des häufigen Gebrauchs sowie erlebter positiver Emotionen nachhaltig verinnerlicht werden. Der Workshop illustriert dies anhand der dramagrammatischen Methode, die auf verschiedene Kontexte (z.B. Deutschunterricht, DaZ-Unterricht, Sprachbildender Fachunterricht) angewendet werden kann. Dramagrammatische Einheiten werden in Auszügen simuliert, reflektiert und nach den spezifischen Bedarfen der Teilnehmenden modifiziert. Ziel ist es, durch eigenes Ausprobieren verschiedene performative Übungstypen und für die Grammatikvermittlung geeignete Theatertechniken kennenzulernen und Anregungen für den eigenen Unterricht zu gewinnen.

## Bildungssprache im naturwissenschaftlichen (Sach-)Unterricht fördern

Benjamin Siegmund (Universität Tübingen & Gymnasium Stauffen)

Bildungssprache und Fachsprache bereiten vielen Schülerinnen und Schülern Schwierigkeiten im naturwissenschaftlichen Fachunterricht. Lehrkräfte stehen vor der Herausforderung, der sprachlichen Heterogenität der Lernenden gerecht zu werden und jeden Schüler und jede Schülerin auf seinem/ihrem Bildungsweg so gut wie möglich zu unterstützen. Wie aber kann es gelingen, sprachliches Lernen in einen primär fachlich ausgerichteten Unterricht zu integrieren? Gestaltungsmöglichkeiten für einen sprachlich reichhaltigen Naturwissenschaftsunterricht ergeben sich aus der Verbindung des naturwissenschaftsdidaktischen *Conceptual Change*-Ansatzes mit dem sprachförderlichen *Scaffolding*-Konzept und zweitsprachdidaktischen *Focus-on-Form*-Strategien. Im Workshop werden erprobte und bildungswissenschaftlich evaluierte Unterrichtsmate-

rialien vorgestellt und Methoden für die Umsetzung von sprachbildendem Fachunterricht ausprobiert und diskutiert.

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## PLENARVORTRAG

### Argumentation live! Debattieren lernen und unterrichten

Ansgar Kemmann (Leitung Jugend debattiert, Frankfurt)

In Debatten lässt sich entdecken, dass es Fragen gibt, die nicht nur nach Antwort, sondern nach gegensätzlicher Antwort verlangen, um sie ganz zu verstehen. Und erst im Vergleich von Rede und Gegenrede zeigt sich, welche Antwort überzeugt. Wir sind schlagfertig oder ringen nach Worten – in Debatten erleben wir Argumentation in Performanz. „Sprache verpflichtet!" heißt das Motto der Jahrestagung der DGfS. Auch dafür geben Debatten ein Beispiel: Wo beide Seiten gehört werden, haben sich beide den Argumenten der Gegenseite zu stellen und gegebenenfalls das Urteil Dritter zu akzeptieren. Der Vortrag beleuchtet diese Zusammenhänge auf unterhaltsame Weise anhand des Wettbewerbs Jugend debattiert, mit praktischen Tipps für das Debattieren im Unterricht.

# Promotionsforum

## Dialekt und Standardsprache

Dienstag, 22. Februar, 15:00-18:00
**Organisatorinnen:** Judith Lauterbach & Julia Braun

### Vortragende:

| | |
|---|---|
| Dr. Rudolf Bühler | Arbeitsstelle Sprache in Südwestdeutschland, Tübingen |
| Dr. Simon Pröll | LMU München |
| Priv.-Doz. Dr. Ellen Brandner | Universität Stuttgart |

Dialekte werden gemeinhin als Abweichungen zur Standardsprache aufgefasst. Demgegenüber steht die Ansicht, dass die Standardsprache selbst eine Varietät darstellt, die sich als Teil der kulturellen und sprachlichen Identität räumlich immer weiter ausbreitet.

Wenn aber Standard als eine Abwesenheit von regionalsprachlichen Merkmalen gilt, weshalb zeigen dann linguistische Daten trotzdem örtliche Zuordnungen standardsprachlicher Äußerungen? Gibt es also wirklich die eine homogene Standardsprache? Und wie lassen sich Unterschiede zwischen regionaler Varietät und Standardvarietät identifizieren?

Im Promotionsforum nehmen wir das Verhältnis von Standardsprache und Dialekt zum Anlass, uns intensiv mit methodischen Fragestellungen bei der empirischen Forschung mit Varietäten zu befassen. Dabei wird es Vorträge geben zu verschiedenen Stufen der empirischen Arbeit. Angefangen bei der theoriebasierten Entwicklung von Fragebögen über die Entstehung von Dialektkorpora und Sprachatlanten hin zu der Frage, wie die gewonnenen Daten zur regionalen Variation analysiert und die Ergebnisse aufbereitet werden können.

Der Fokus auf das methodische Vorgehen bei der Datenerhebung und Datenanalyse macht das Promotionsforum nicht nur für dialektologische Forschungsfragen interessant, sondern gibt Mittel für jegliche empirische Forschungsvorhaben an die Hand.

# PhD student forum

## Dialect and standard language

Tuesday 22 February 2022, 15:00-18:00
**Organisers**: Judith Lauterbach & Julia Braun

**Invited speakers:**

| | |
|---|---|
| Dr. Rudolf Bühler | Arbeitsstelle Sprache in Südwest-deutschland, Tübingen |
| Dr. Simon Pröll | LMU München |
| Priv.-Doz. Dr. Ellen Brandner | Universität Stuttgart |

Dialects are commonly regarded as deviations from a standard. An alternative approach is to regard standard language itself a variety that displays regional features. This would explain why we do in fact find regional differences in "standard" utterances. So, is there only one standard language? And how can we identify differences in regional and standard varieties?

In the DGfS PhD student forum, we shall take the relation of standard German and regional German varieties as a starting point to then address methodological issues in empirical studies. There will be three talks on three different levels of empirical work. These will range from the theory-based development of questionnaires to the formation of dialectal corpora and linguistic atlases. Finally, we will address the question how the elicited data on regional variation can be analysed and how the results can be processed and illustrated.

The focus on methodological issues makes the workshop interesting and profitable for all kinds of empirical researchers, not only for those linguists who are interested in German dialects.

All talks will be given in German.

# Computational Linguistics tutorial

## Information-theoretic analyses of natural languages

Tuesday 22 February 2022, 10:00-17:00

Christian Bentz & Ximena Gutierrez-Vasques

Languages transmit information. They are used to send messages across meters, kilometers, and around the globe. To better understand their information carrying potential, we can harness information theory. In fact, one of its first applications, back in the early 1950s, was a study estimating the amount of uncertainty in English text. Since then, information-theoretic measures have been applied in a multitude of quantitative, computational, and psycholinguistic studies of natural languages. This workshop will, firstly, give a brief introduction to the conceptual underpinnings of information-theoretic measures such as entropy, conditional entropy, and mutual information. Secondly, some problems, pitfalls, and possible solutions for their estimation are discusses. Thirdly, we will give some hands-on exercises for using these measures in research on natural languages. The workshop will provide all relevant data and code online. It will not require students to have a strong programming background.

# Workshop programs

# AG 1: Towards a comparative historical dialectology: Evidence from morphology and syntax

Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer

## Wednesday 23.02.22

### Session 1  (13:45-15:45)

**13:45**   Short welcome note

**13:50**   Tamsin Blaxter (Cambridge)

How spatial evidence can help us understand morphosyntactic change: the dialectology of case loss in Middle Norwegian

**14:45**   Carsten Becker (Marburg) & Oliver Schallert (München)

Areal variation in Middle High German: Methodological and quantitative aspects

**15:15**   Julia Hertel (Saarbrücken) & Daniel Hrbek (Osnabrück)

A mystery finally unravelled: The loss of the bipartite negation marker in Middle High German

### Session 2  (16:30-18:00)

**16:30**   Andreas Klein (Mainz)

Accusativism across varieties and time

**17:00**   Christina Katsikadeli (Wien) & Ioannis Fykias (Salzburg)

A corpus-based analysis of adnominal genitive constructions in varieties of Post-Classical and Byzantine Greek

**17:30**   Johanna Meyer (Münster)

Translation practice as an indicator of syntactic conventions? On the imitation of orality in Middle Low German 15th and 16th ct. 'folk books'

## Thursday 24.02.22

### Session 3  (09:00-10:30)

**09:00**    Bettelou Los (Edinburgh)
The scope for variation in syntax

**10:00**    Adam Farris & Aryaman Arora (Georgetown)
DIPI: Dependency parsing for Ashokan Prakrit historical dialectology

### Session 4 (11:15-12:45)

**11:15**    Anna Pineda (Paris / Köln)
Dialectal differences in the development of differential object marking in the diachrony of Catalan

**11:45**    Louise Esher (Paris)
How parallel longitudinal studies of inflection reveal areal (dis)continuities in diachrony

**12:15**    Moreno Mitrović (Berlin)
Dialectological-diachronic grammar of conjunction in archaic Indo-Iranian

### Session 5 (13:45-14:15)

**13:45**    George Walkden & Alexander Pfaff (Konstanz)
Relic syntax and dialectal comparison: The adjectival article in early Germanic

## Friday 25.02.22

### Session 6  (11:45-14:15)

**11:45**    Miguel Gutierrez Mate (Augsburg)
"De-bound" morphemes in the process of creolization: The case of

Palenquero Creole

**12:15**   Barbara Blaha Pfeiler (Mérida) & Stavros Skopeteas (Göttingen)

*- CANCELLED -*


**12:45**   Nathalie Fromm (Wuppertal)

Development of plural marking of former neutral a-stems in German dialects

**13:15**   Final discussion and farewell

# AG 2: Commitments in grammar and discourse

Anton Benz, Manfred Krifka & Marvin Schmitt

## Wednesday 23.02.22

### Session 1 (13:45-15:45)

**13:45** Benz, Krifka & Schmitt (ZAS, Berlin)
Introduction

**14:15** Neri Marsili (invited, U Bologna)
Commitment, saying, and deniability

**15:15** Alex Wiegmann (Bochum) & Neele Engelmann (Göttingen)
Is lying morally worse than misleading?

### Session 2 (16:30-18:00)

**16:30** Johannes Heim (Newcastle)
Deconstructing commitment: Lessons from the study of rising declaratives

**17:00** Soichiro Kinoshita (Tokyo)
Can a commitment be ironic?

**17:30** Jesse Harris (UC Los Angeles)
Commitments *de lingua* in transparent free relatives

## Thursday 24.02.22

### Session 3 (09:00-10:30)

**09:00** Anna Kocher (KU Eichstätt)
Commitment attribution and root-clause complementizers

**09:30**  Hans-Martin Gaertner ((XRCL Budapest & IAWDS) & Jens Michaelis (Bielefeld)

Farewell to V2 declaratives?

**10:00**  Xavier Villalba (U Autònoma de Barcelona)

Commitments to exclamations

## Session 4 (11:15-12:45)

**11:15**  Mingya Liu, Stephanie Rotter (HU Berlin) & Anastasia Giannakidou (Chicago)

Bias and modality in conditionals

**11:45**  Zahra Mirrazi (U Mass, Amherst)

Performative conditionals

**12:15**  Beata Trawinski (IDS Mannheim)

Mental attitude verbs between performatives and constatives. A view from Polish

## Session 5 (13:45-14:45)

**13:45**  Rebecca Woods (Newcastle) & Tom Roeper (U Mass, Amherst)

Learning to commit: An acquisition path for expressions of commitment in US and UK English

**14:15**  Yu'An Yang, Daniel Goodhue, Valentine Hacquard & Jeffrey Lidz (U Maryland)

Is that a question? Learning to identify questions in early speech to children

## Friday 25.02.22

## Session 6  (11:45-14:15)

**11:45**  Sarah Murray (invited, Cornell)

*to be announced*

**12:45**   Natasha Korotkova (Konstanz)
Hearsay and (non-)commitment

**13:15**   Vesela Simeonova (Tübingen / Graz)
Evidential commitments and the addressee: A corpus study

**13:45**   Irina Pandarova (Lüneburg)
Epistemic adverbials are truth-conditional

## Alternates

Nicholas Allott (Oslo) & Benjamin Shaer (Carleton)
Legal obligations and prohibitions: Testing the viability of a commitment approach

# AG3: Long distance dependencies and the structure of embedded clauses in African languages

Katharina Hartmann & Malte Zimmerman

## Wednesday 23.02.22

### Session 1 (13:45-15:45)

**13:45** Katharina Hartmann (Frankfurt) & Malte Zimmerman (Potsdam)

Introduction, including a short presentation of "Terraling" by Frank Sode

**14:15** Hermann Keupdjio (McGill)

Long-distance dependencies and "complement" CPs in Bamileke Medumba

**14:45** Constantine Kouankem (Ngaoundéré)

Syntactic display and semantic functions of Medumba SVCs

**15:15** Henry Fominyam (Potsdam)

Morpho-syntactic asymmetries in Awing wh-questions

### Session 2 (16:30-18:00)

**16:30** Himidan Hassen, Peter Jenks (UC Berkeley) & Sharon Rose (UC San Diego)

Topic and focus in Tira

**17:00** Invited talk 1: Vicki Carstens (UConn)

Addressee agreement in Bantu and speech act projections

## Thursday 24.02.22

### Session 3 (09:00-10:30)

**09:00**   Invited Talk 2: Alassane Kiemtoré (Stuttgart)

The function of complementizers and its consequences for clausal embedding the case of *ko* in Jula

**10:00**   Daniel Aremu (Frankfurt)

Subject and non-subject wh-questions asymmetry in Akure

### Session 4 (11:15-12:45)

**11:15**   Travis Major (USC), Justine Sikuku (Moi) & Michael Diercks (Pomona)

Reanalyzing Bukusu "complementizer agreement"

**11:45**   John Gluckmann (Kansas)

Copulas and complementizers in Kinyamulenge

**12:15**   Aron David Finholt (Kansas)

On complementizer choice in Swahili

### Session 5 (13:45-14:45)

**13:45**   Rozenn Guérois (CNRS)

Subordinate clauses and tail-head linkage in Cuwabo narratives

**14:15**   Claudius P. Kihara (Chuka)

Cosubordination in Gikuyu

## Friday 25.02.22

### Session 6  (11:45-14:15)

**11:45**   Samuel Owoahene Acheampong (Frankfurt)

An account of the resumption and trace effect in ex-situ wh-extraction in Likpakpaanl

**12:15**   Samuel Alhassan Issah (Winneba) & Hasiyatu Abubakari (Legon)

Resumption as a repair mechanism in illicit movement: The case of

Dagbani and Kusaal

**12:45**  Hermann Keupdjio (McGill)

Resumption at the syntax-semantics interface: The case of Bamileke Medumba

**13:15**  Invited Talk 3: Abigail Anne Bimpeh (ZAS)

'Fake' logophors? The case of Ewe

## AG 4: Change of state verbs – Empirical and theoretical perspectives
### Paola Fritz-Huechante & Antonio Machicao y Priemer

## Wednesday 23.02.22

### Session 1  (13:45-15:45)

**13:45**    Paola Fritz Huechante & Antonio Machicao y Priemer (HU Berlin)

Change of state verbs: State of the art

**14:15**    Fabienne Martin & Florian Schäfer (HU Berlin)

Two types of transitives with inchoative semantics

**14:45**    Louise McNally (invited speaker, Pompeu Fabra)

Change of state: From the BECOME operator to the mereotopology of events

### Session 2  (16:30-18:00)

**16:30**    Patrick Brandt (IDS Mannheim)

Reflexive binding, order and change of State in certain German prefix and particle verb types

**17:00**    Jakob Maché (Lisbon)

Building resultative serial verb constructions in Benue-Kwa languages

**17:30**    Yoko Sugioka (Keio)

Syntax-semantics discrepancy in deadjectival and inherently-directed motion verbs in Japanese

## Thursday 24.02.22

### Session 3  (09:00-10:30)

**09:00**  Nicole Gotzner (Potsdam) & Diana Mazzarella (Neuchâtel)

Polarity and standards of comparison: The interpretation of absolute adjectives in the *not very* construction

**09:30**  Stephanie Solt (invited speaker, ZAS)

On the underspecification of measurement

## Session 4 (11:15-12:45)

**11:15**  Shiao Wei Tham (Singapore)

Two dimensions in states of physical disturbance

**11:45**  John Beavers (Texas), Andrew Koontz-Garboden (Manchester) & Scott Spicer (Texas)

Scales in lexical decomposition: The role of the root

## Session 5 (13:45-14:45)

**13:45**  Elena Karagjosova (Freie Universität Berlin)

Change of state verbs and aspect in Bulgarian

**14:15**  *CHANGE:* Natasha Kasher & Aviya Hacohen (Ben-Gurion)

Does perfective aspect entail culmination in Russian?

## Friday 25.02.22

## Session 6  (11:45-14:15)

**11:45**  Athina Sioupi (Thessaloniki)

An account for change of state verbs cross-linguistically

**12:15**  Florian Schäfer, Despina Oikonomou, Fabienne Martin, Felix Golcher & Artemis Alexiadou (HU Berlin)

Anticausatives are weak scalar expressions: Experimental evidence from Greek

**12:45**  Stavroula Alexandropoulou & Nicole Gotzner (Potsdam)

Measurement scales and competition between alternatives

**13:15**  Margit Bowler, Emily Hanink, Jens Hopperdietzel, Andrew Koontz-Garboden (all: Manchester), Colin Bannard (Liverpool), Mike Everdell (Texas), Itamar Francez (Chicago), Kyle Jerro (Essex), Elise LeBovidge (Washington) & Stephen Nichols (Manchester)

State/change of state lability and the meaning of verbhood

**13:45**  Lea Heßler, Merle Weicker & Petra Schulz (Frankfurt)

Adjectives and telicity - An empirical study of resultative adjective constructions in German

## Alternates

Katrin Menzel (Saarland)
Change-of-state verbs in scientific writing across time

Beatrice-Andreea Pahonțu (Bucharest / Paris (LLF))
The combinatorics of the Romanian periphrasis *a fi pe cale* lit. 'to

be on way' with change of state verbs and its aspectual readings

## Cancelled

Boban Arsenijević & Stefan Milosavljević (Graz)
Serbo-Croatian verbal theme vowels and the composition of aspect and argument structure

# AG 5: Visual communication. New theoretical and empirical developments

Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach

## Wednesday 23.02.22

### Session 1  (13:45-15:45)

**13:45**   Cornelia Ebert (Frankfurt), Clemens Steiner-Mayr & Markus Steinbach (Göttingen)

Visual communication

**14:15**   Ellen Fricke (invited presentation, Chemnitz)

Multimodal deixis and semiotic complexity: Processes of code manifestation and code integration

**15:15**   Irene Mittelberg (RWTH Aachen)

Iconicity – embodiment – image schemas. Towards a spectrum of different degrees of gesturally enacted schematicity

### Session 2  (16:30-18:00)

**16:30**   Arnulf Deppermann (IDS Mannheim)

Ecologically adaptive multimodal practice: Varieties of gestural and verbal conduct in recipient designed spatial reference

**17:00**   Cécile Meier (Frankfurt)

Arbitrary mapping and object frequency

**17:30**   Patrick Georg Grosz (Oslo), Elsi Kaiser (U Southern California) & Francesco Pierini (École des Hautes Études en Sciences Sociales)

Beat-related face emoji in multimodal written communication

## Thursday 24.02.22

### Session 3  (09:00-10:30)

**09:00**   Volker Gast (Jena)

Communicating with the eyebrows. A corpus-based study of facial articulation in interviews with David Letterman

**09:30**   Ronny Bujok, Antje Meyer & Hans Rutger Bosker (MPI for Psycholinguistics)

The role of visual articulatory vs. gestural cues in audiovisual lexical stress perception

**10:00**   Naomi Francis, Patrick Georg Grosz & Pritty Patel-Grosz (Oslo)

Analyzing the 'throwing away' gesture as a common ground management device

### Session 4 (11:15-12:45)

**11:15**   Patrick C. Trettenbrein, Matteo Maran, Nina-Kristin Pendzich, Jan Pohl, Thomas Finkbeiner, Angela D. Friederici & Emiliano Zaccarella (MPI for Human Cognitive and Brain Sciences & University of Göttingen)

Can detection of extraneous visual signals reveal the syntactic structure of sign language?

**11:45**   Anna Kuder (Warsaw / Köln)

Palm-up and throw-away gestures in Polish, German, and Russian Sign Language – A corpus-based study

**12:15**   Sarah Bauer (Hamburg)

Looking at place of articulation as a first approach to identifying metaphors of German Sign Language in the domain of 'cognition'

### Session 5 (13:45-14:45)

**13:45**   Liona Paulus & Jana Hosemann (invited presentation, Köln)

Gestures in voicing during sign language interpreting – A new perspective

### Session 6  (11:45-14:15)

**11:45**    Jeremy Kuhn (invited speaker, Institut Jean Nicod)
Iconic representations of logical meaning

**12:45**    Emar Maier (Groningen)
Face emojis as use-conditional pictures

**13:15**    Nadine Bade (Potsdam), Philippe Schlenker & Emmanuel Chemla (Ecole Normale Supérieure)
Word learning with visual animations as a window into the Triggering Problem – Introducing a new paradigm

**13:45**    Maria Esipova (Oslo)
From performatives to performances

## Poster session: Thursday 12:45-13:45 on gather.town

Lara Billion, Melanie Huth & Rose Vogel (Frankfurt)
Mathematics as a handicraft – Gesture and action use of young learners while working on diagrams

Carolin Dix & Alexandra Groß (Bayreuth)
Raising both eyebrows as visual change-of-state marker

Christian Dobel, Oliver Mothes, Lena Mers, Joachim Denzler & Orlando Guntinas-Lichius (Jena & Jena University Hospital)
The communicating face: Comparing expressive facial behavior in response to imitation or verbal instruction

Celina I. von Eiff & Stefan R. Schweinberger (Jena)

Visual effects from facial information to voice perception in normal hearing individuals and cochlear implant users

Natasha Janzen Ulbricht & Michaela Sambanis (FU Berlin)
"Gestures are good because they tell you what's coming." Classroom-based empirical studies on gesture and second language word learning

Helene Kreysa (Jena), Stefan R. Schweinberger (Jena), Hannah-Sophia Boltz (Jena University Hospital) & Maria Glaser (HU Berlin)
Multimodal communication: The impact of an instructor's eye gaze on cognitive performance in a spoken question-answer interaction

## Alternates

Lara Billion, Melanie Huth & Rose Vogel (Frankfurt)
Mathematics as a handicraft – Gesture and action use of young learners while working on diagrams

Natasha Janzen Ulbricht & Michaela Sambanis (FU Berlin)
"Gestures are good because they tell you what's coming." Classroom-based empirical studies on gesture and second language word learning

Carolin Dix & Alexandra Groß (Bayreuth)
Raising both eyebrows as visual change-of-state marker

# AG 6: Optionality and non-optionality of syntactic movement

Anke Himmelreich & Johannes Mursell

## Wednesday 23.02.22

### Session 1  (13:45-15:45)

**13:45**   Anke Himmelreich & Johannes Mursell (Frankfurt)
Introduction

**14:15**   Gereon Müller (invited speaker, Leipzig)
On the optionality of local order-preserving displacement

**15:15**   David Medeiros (The University of Arizona)
A universal supergrammar of neutral word order accounts for U20, FOFC, the HMC, and more

### Session 2  (16:30-18:00)

**16:30**   Zetao Xu (Chinese University of Hong Kong)
A case of pseudo-optionality resulted from language contact

**17:00**   Adrian Stegovec (UConn)
The third way: Optional object reordering as ambiguous labeling resolution

**17:30**   Volker Struckmeier (Bochum)
Optional for who? Optional phenomena do not necessitate optional syntactic operations

## Thursday 24.02.22

### Session 3  (09:00-10:30)

**09:00**   Julia Bacskai-Atkari (Konstanz)
Extraposition in German comparatives and the optionality of right-

ward movement

**09:30**   Irene Amato (Leipzig)
Italian past participle agreement overt/covert A-movement

**10:00**   András Barany & Jutta Hartmann (Bielefeld)
Information structurally triggered movement: Apparent optionality?

**11:15**   *Opportunity to discuss the talks*

**11:45**   Andreas Blümel (Göttingen)
Reanalyzing (non-)DET-drop and (non-)ECP in the nominal domain

**12:15**   Aviv Schoenfeld (Tel Aviv)
Optional NP raising in partitives

**13:45**   Elena Titov (invited speaker, University College London)
Optionality of wh-movement and the wh-parameter

## Friday 25.02.22

**11:45**   Johannes Mursell & Anke Himmelreich (Frankfurt)
Closing words

**12:15**   Workshop lunch / opportunity to discuss the talks

# AG 7: The diachrony of word class peripheries

Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer

## Wednesday 23.02.22

### Session 1  (13:45-15:45)

**13:45**    Introduction

**14:15**    Antje Dammel (invited speaker, Münster)
Love it, change it, or leave it. Paths of change of word class-peripheral items

**15:15**    Annika Vieregge (Kiel)
Periphery or second prototype? Genitive prepositions in German

### Session 2  (16:30-18:00)

**16:30**    Wiltrud Mihatsch & Désirée Kleineberg (Tübingen)
The diachronic instability of Spanish object mass nouns: A peripheral category?

**17:00**    Jan Junglas (HU Berlin)
A diachronic approximation to singulative number marking within north-eastern Africa's tripartite number languages

**17:30**    Javier Caro Reina (Köln)
The onymic status of unique nouns in Romance languages

## Thursday 24.02.22

### Session 3  (09:00-10:30)

**09:00**    Katharina Paul & Marco Coniglio (Göttingen)
Adjectival adverbs or adverbial adjectives? How diachrony can explain synchrony

**09:30**   Martina Werner, Nina C. Rastinger & Sophia M. Beiter (Wien)

A phantom in the history of German? On the emergence of relational adjectives

**10:00**   Carlotta J. Hübener (Bamberg)

From *kaum Platz findend* to *am platzsparendsten*. A diachronic study on German noun-participle combinations as peripheral adjectives

### Session 4 (11:15-12:45)

**11:15**   Hendrik De Smet (invited speaker, Leuven) & Lisa Lambrechts (invited speaker, Leuven)

Categorially a-drift: The history of English *dare*

**12:15**   Ulrike Schneider (Mainz)

Prototypical vs. peripheral verbs: Can transitivity help us tell the difference?

### Session 5 (13:45-14:45)

**13:45**   Ekaterina Aplonova, Tatiana Nikitina, Izabela Jordanoska, Guillaume Guitang, Bethany Lycan, Abbie Hantgan-Sonko, Olga Kuznetsova & Leonardo Contreras Roa (CNRS, Paris)

At the periphery of the verbal category: Early-stage grammaticalization of quotative verbs

**14:15**   Maris Camilleri (Essex)

The pseudo-verbal word class category in Arabic

### Friday 25.02.22

### Session 6  (11:45-14:15)

**11:45**   Christian Forche (Leipzig)

German verbs – or nouns? or adjectives? – that cannot occur in V2

position: a diachronic perspective

**12:15**   Marius Albers (Siegen)

Particle-prefix combinations in German verb-formation

**12:45**   Johanna Weiser (Mainz)

Grammatical integration of loanwords and their diachronic per-
spective: An empirical study on English verbs in the German lan-
guage

**13:15**   Maria Flaksman (Jena)

Imitative words as parts of speech: A diachronic approach

**13:45**   Final discussion

# AG 8: How productive is derivational morphology?
### Jenny Audring & Kristian Berg

## Wednesday 23.02.22

### Session 1  (13:45-15:45)

**13:45**   Einführung

**14:15**   Harald Baayen (invited speaker),  Elnaz Shafaei-
Bajestan, Yu-Ying Chuang & Maria Heitmeier (Tübingen)

Productivity in inflection

**15:15**   Elizabeth Pankratz (Edinburgh), Titus von der Malsburg
(Stuttgart) & Shravan Vasishth (Potsdam)

An entropy-based approach to measuring morphological productivity

### Session 2  (16:30-18:00)

**16:30**   Katrin Hein & Sasha Wolfer (IDS, Mannheim)

German affixes of negation: Productivity and affective content

**17:00**   Tanja Säily (Helsinki)

Diachronic suffix competition across registers and social groups in
Early and Late Modern English

**17:30**   Diskussion: Methodologie

## Thursday 24.02.22

### Session 3  (09:00-10:30)

**09:00**   Camiel Hamans (Amsterdam)

Clipping and productivity

**09:30**   Luise Kempf (Bern) & Stefan Hartmann (Düsseldorf)

Productivity factors and affix life stages

## Session 4 (11:15-12:45)

**11:15**   Sabine Arndt-Lappe (Trier)

Syntact-ic or syntact-ical? Predicting individual productivity with an analogical model

**11:45**   Elisabeth Huber (LMU Munich)

Can insights from compound productivity enrich the understanding of productivity in derivation?

**12:15**   Diskussion: Register und individuelle Faktoren

## Session 5 (13:45-14:45)

**13:45**   Jordan Kodner (Stony Brook University)

Input sparsity and derivational relationships in Latin and Spanish

## Friday 25.02.22

## Session 6  (11:45-14:15)

**11:45**   Veronika Mattes (Graz), Sabine Sommer-Lolei, Katharina Korecky-Kröll & Wolfgang U. Dressler (Wein)

Productivity of derivational morphology in the course of first language development

**12:45**   Anke Lüdeling, Julia Lukassek & Anna Shadrova (HU Berlin)

Variation and productivity in German L1 and L2 nominal word-formation

**13:15**   Abschlussdiskussion

# AG 9: Narration in context: Between linguistic theory and empirical operationalization
Julia Lukassek, Dina Serova & Britta Schulte

## Wednesday 23.02.22

### Session 1  (13:45-15:45)

**13:45**    Julia Lukassek, Britta Schulte & Dina Serova (HU Berlin
Introduction

**14:15**    Sonja Zeman (invited speaker, LMU München)
The grammar of narration

**15:15**    Alexander Teixeira Kalkhoff (Regensburg), Isabel Colón de Carvajal & Luisa Acosta Cordoba (Lyon)
The NARRANDO project: Spanish storytelling in talk-in-interaction

### Session 2  (16:30-18:00)

**16:30**    Peter Hofmann, Anke Holler, Thomas Weskott (Göttingen)
There, and back again: On marking the boundaries of free indirect discourse

**17:00**    Jakob Egetenmeyer (Köln)
Overshooting the narrative goal: The case of TAM forms in football language

**17:30**    Carolyn Anderson (Wellesley College)
Protagonist-mediated perspective

## Thursday 24.02.22

### Session 3  (09:00-10:30)

**09:00**    Monika Fludernik (invited speaker, Freiburg)

Diachronic narratology: Linguistic Perspectives on the historical development of narrative within the framework of English studies

**10:00** Boris Maslov (Oslo)
*- CANCELLED -*

## Session 4 (11:15-12:45)

**11:15** Michał Mrugalski (HU Berlin)

Terrorist Realism as a narrative mode in Russian and Polish prose around 1900: Andrei Belyi, Leonid Andreev, and Stanisław Brzozowski

**11:45** Gohar Schnelle & Silke Unverzagt (HU Berlin)

Narration in the service of monastic teaching: Special characteristics of narrative passages in Notkers Psalter

**12:15** Camilla Di Biase-Dyson (Macquarie University)

How to tell tales in Ancient Egyptian – the real meaning of the word *sḏd*

## Session 5 (13:45-14:45)

**13:45** Oliver Bunk (HU Berlin)

When less is more: Variation in formal narrations of heritage speakers

**14:15** Katya Aplonova (CNRS LLACAN Paris)

Narratives are unique data for exploring reported speech as a cross-linguistic category

# Friday 25.02.22

## Session 6 (11:45-14:15)

**11:45** Robert Külpmann (Mainz)

Independently used German *wenn*-sentences as meta-narrative

comments

**12:15**  Laura Rehberger (Wuppertal)

What drives narration forward? Microstructural semantics and pragmatics captured by situation theory

**12:45**  Luisa Gödeke (Göttingen)

The linguistic Structure of non-fictional statements

**13:15**  Melanie Andresen (Stuttgart)

Narration in academic language: A corpus linguistic approach based on verb morphology

**13:45**  Annette Gerstenberg (Potsdam)

On the margins of narration

## Alternates

Kimberley Pager-McClymont (Huddersfield)

Suspense is thunder/lightning: The impact of pathetic fallacy on narration, a case study

Mili Aishwarya (Delhi)

Analysing Narratives in the Performative Art of Indian Puppetry

## AG 10: Discourse obligates – How and why discourse limits the way we express what we express (short AG)

Robin Lemke, Lisa Schäfer, Heiner Drenhaus & Ingo Reich

## Wednesday 23.02.22

### Session 1 (13:45-15:45)

**13:45** Robin Lemke, Lisa Schäfer, Heiner Drenhaus & Ingo Reich (Saarland)

Discourse obligates! – An introduction

**14:15** Swantje Tönnis (Stuttgart)

Cleft sentences reduce information density in discourse

**14:45** Tatjana Scheffler (Bochum), Michael Richter (Leipzig) & Roeland van Hout (Radboud)

Information theory and German intensifiers

**15:15** Radim Lacina (Potsdam), Nicole Gotzner (Potsdam) & Patrick Sturt (Edinburgh)

Alternatives in broad-scope focus: Testing Rooth's theory on VP-constituents

### Session 2 (16:30-18:00)

**16:30** Maja Linke & Michael Ramscar (Tübingen)

How communicative constraints shape the structure of lexical distributions

**17:00** Hannah Rohde (invited speaker, Edinburgh)

What's at issue? What's the point?

# Thursday 24.02.22

**09:00**   Markus Bader & Yvonne Portele (Frankfurt)

Producing referential expressions: No need to invoke information theory

**09:30**   Vinicius Macuch (Osnabrück / ZAS) & E Jamieson (Southampton)

Interpreting negated polar questions and tracking beliefs in online discourse processing

**10:00**   Annemarie Verkerk, Tania Avgustinova, Ekaterina Lapshinova-Koltunski, Katrin Menzel, Stefania Degaetano-Ortlieb & Luigi Talamo (Saarland)

Information status investigated using surprisal: differences across syntactic roles and referential expressions in European languages

# AG 11: Adaptive linguistic complexity: readability, developmentally proximal input, alignment (short AG)

Detmar Meurers, Zarah Weiss

## Thursday 24.02.22

### Session 1  (11:15-12:45)

**11:15**    Gabriele Pallotti (Modena and Reggio Emilia)

Linguistic complexity – the more is not always the better

**12:15**    Carolina Olszycka & Sandra Pappert (Heidelberg)

Language barriers for adolescents and adults with low literacy: A corpus of written texts used in professional education

### Session 2  (13:45-14:45)

**13:45**    Karin Harbusch & Ina Steinmetz (Koblenz-Landau)

How to identify easy-to-understand constructions beyond the scope of *'Leichte Sprache'* (LS; easy-to-read German) by investigating treebanks of LS, spoken and written German

**14:15**    Zarah Weiss & Detmar Meurers (Tübingen)

Modeling teachers' language adaptivity in GSL classrooms

## Friday 25.02.22

### Session 3  (11:45-14:15)

**11:45**    Xiaobin Chen (Tübingen):

ICALL offering individually-adaptive input: Effects of complex input on L2 development

**12:45**    Merle Weicker, Rabea Lemmer & Petra Schulz (Frankfurt)

Input for second language learners benefits from linguistic insights:

the case of dative

**13:15**   Sandra Birzer (Bamberg) & Heike Zinsmeister (Hamburg)
Employing criterial features for assessing text complexity

**13:45**   Diskussion

## AG 12: The graphematics/pragmatics interface (short AG)

Mailin Antomo, Nathalie Staratschek & Sonja Taigel

### Wednesday 23.02.22

#### Session 1 (13:45-15:45)

**13:45**   Einführung / Introduction

**14:15**   Rita Finkbeiner (invited speaker, Mainz)

On the interaction between typography and pragmatics. The case of newspaper headlines

**15:15**   Daniel Gutzmann (Köln) & Katharina Turgay (Landau)

Expressive Punctuation!?!! Punctuation between grammar(?) and pragmatics!

#### Session 2 (16:30-18:00)

**16:30**   *CHANGE:* Nathalie Staratschek (Wuppertal)

What we "mean" when we use air quotes

**17:00**   Lynne Cahill (Sussex)

What's in a kiss? The pragmatics of orthographic kisses in UK CMC

**17:30**   *CHANGE:* Markus Spitzer & Thomas Weskott (Göttingen)

Starstruck – An experimental study on the graphemic representation of gender neutrality in German

### Thursday 24.02.22

#### Session 3 (09:00-10:30)

**09:00**   Annika Labrenz & Heike Wiese (HU Berlin)

(Inter-)subjective discourse functions of emoji in instant messaging

**09:30**    Marianne Rathje (Danish Language Council) & Tina Thode
          Hougaard (Aarhus)

"To underline tone and point" – a Danish survey of reasons for using emojis

**10:00**    Helen Magowan (Cambridge)

Pre-typographic graphematic/pragmatic competence

# AG 13: Interpunktion verpflichtet (short AG)

### Marcel Schlechtweg & Nanna Fuhrhop

## Thursday 24.02.22

### Session 1 (11:15-12:45)

**11:15** Sebastian Bücking (Siegen)

Schrift und Wahrheit: Das Rufzeichen als lexikalischer Operator für Verum

**11:45** Melitta Gillmann (Hamburg)

Das Semikolon als Kohäsionsmittel

**12:15** Heike Wiese, Annika Labrenz & Hannah Hullmeine (HU Berlin)

„Punkt-Punkt-Punkt" <…> in Instant Messaging

### Session 2 (13:45-14:45)

**13:45** Marcel Schlechtweg & Nanna Fuhrhop (Oldenburg)

Quotes and pure quotation in English: Evidence from a reading-time study

**14:15** Natascha Raue & Álvaro Cortés Rodríguez (Kassel)

The interplay between quotation and referentiality: An empirical investigation into name-informing constructions

## Friday 25.02.22

### Session 3 (11:45-14:15)

**11:45** Luzia Pätzel (Erlangen-Nürnberg):

Punctuation in German 19th- and early 20th-century patient letters

**12:15** Karsten Rinas (invited speaker, Olmütz)

Gebrauch und Reflexion des Gedankenstrichs im 18. Jahrhundert

**13:15** Laura Scholübbers (Oldenburg)
Der gegenwärtige Gedankenstrichgebrauch

**13:45** Niklas Reinken (Leipzig)
Die Länge der horizontalen Striche

## Alternates

Philippe Collberg (Lund)
Comma splices in student writing and language correctness

Alexander Katourgi (Lund)
Colon: Punctuation marking information structure

Zachary Satoshi Feldcamp (Toronto)
Second position without prosodic deficiency: Evidence from the Latin interpunct

# AG 14: (Why) is language (not) rhythmic? (short AG)

Lars Meyer & Antje Strauß

## Wednesday 23.02.22

### Session 1: Auditory perception of the speech envelope (13:45-15:45)

**13:45**   Antje Strauß (Konstanz)

Testing prerequisites of neural entrainment and its functional limitations for speech processing

**14:15**   Anna Robinson, Ann Bradlow & Jennifer Cole (Northwestern)

A role for rhythm in speech intelligibility

**14:45**   Alexis D. MacIntyre, Ceci Qing Cai & Sophie K. Scott (University College London)

Pushing the envelope: Evaluating speech rhythm with different envelope extraction techniques

**15:15**   Kanad Mandke, Sheila Flanagan, Annabel Macfarlane, Fiona Gabrielczyk, Angela Wilson (Cambridge), Joachim Gross (Münster) & Usha Goswami  (Cambridge)

Linguistic rhythm timescale deficits in children with dyslexia

### Session 2: Rhythm across Languages (16:30-18:00)

**16:30**   Tamara Rathcke (Konstanz), Chia-Yuan Lin (Huddersfield), Simone Falk (Sorbonne Nouvelle Paris-3 / Montreal) & Simone Dalla Bella (Montreal)

When language hits the beat: Studying rhythm in stimuli of varying complexity and across prosodically diverse languages by means of sensorimotor synchronisation

**17:00**   Alan Langus & Barbara Höhle (Potsdam)

Pupillary entrainment to natural speech reveals rhythmic differences

between languages

**17:30**  Maria Clemencia Ortiz-Barajas (Paris), Léo Varnet (École Normale Supérieure), Ramón Guevara (Padua), Christian Lorenzi (École Normale Supérieure) & Judit Gervain (Padua)

The brain synchronization to the quasi-rhythmicity of language

## Thursday 24.02.22

### Session 3: Prosody and the prosody–syntax interface (09:00-10:30)

**09:00**  Gerrit Kentner (Frankfurt) & Isabelle Franz (MPI, empirische Ästhetik / Frankfurt)

Rhythmic production, rhythmic parsing, and limits of rhythm in language processing

**09:30**  Isabelle Franz (MPI, empirische Ästhetik / Frankfurt)

Influences of (non-binary) rhythm on word order in German

**10:00**  Lars Meyer (MPI, Human Cognition & Brain Sciences / University Hospital Münster)

From acoustic to abstract to neural rhythms

### Alternates

Katharina Menn (Leipzig)

Yulia Lamekina (Leipzig)

## Thursday 24.02.22

### Session 1  (11:15-12:45)

**11:15**    Joost Zwarts (Utrecht)

*Tax havens* and *fiscal regimes*: metaphorical domains in compounding and modification

**12:15**    Maximilian Frankowsky (Leipzig)

Metonymic shifts help to combine the functions of morphological and syntactic constructions in German ICCs

### Session 2  (13:45-14:45)

**13:45**    Natascha Elxnath (Tübingen)

*Schnelltest* vs. *schneller Test*: a case study on the interpretation and usage of AN-compounds and AN-phrases

**14:15**    Qi Yu & Regine Eckardt (Konstanz)

Enigmatic compounds: how they act as source of attitudinal meaning

## Freitag 25.02.22

### Session 3  (11:45-14:15)

**11:45**    Matthias Urban (Tübingen):

Metaphorical processes in compounds: a systematic cross-linguistic study

**12:15**    Davide Mocci (Scuola)

Metaphors and the internal order of Sanskrit compounds

**12:45**   Liliane Hodieb (Institut National des Langues et Civilisations Orientales)

Compounding in Wushi: the 'word vs. phrase' dichotomy and the role of context

**13:15**   Caterina Saracco (Torino)

Bahuvrīhi compounds in Old English: the role of figurative language

**13:45**   Martin Schäfer (Düsseldorf) & Barbara Schlücker (Leipzig)

The figurative potential of adjective noun compounds

## Alternates

Stefan Engelberg (Leibniz-Institut, Mannheim)

Metaphoric patterns and bound metaphors in nominal compounding

Irene Rapp (Tübingen)

Metaphoric interpretation of compounds versus genitive constructions

# Computational Linguistics poster session

Timm Lichte & Rainer Osswald

## Wednesday 23.02.22

### Part 1  (15:45-16:30)

Markus Egg & Valia Kordoni (HU Berlin)
A corpus annotated for metaphor in German

Marie-Pauline Krielke & Jörg Knappen (Saarland)
Good sentences, bad sentences

Marc Kupietz, Nils Diewald, Peter M. Fischer & Eliza Margaretha (IDS)
Reproducible complex corpus analyses with KorAP's R and Python libraries

Katrin Ortmann, Stefanie Dipper (RU Bochum), Sophia Voigtmann & Augustin Speyer (Saarland)
An Information-Theoretic Account of Constituent Order in the German Middle Field

## Thursday 24.02.22

### Part 2  (10:30-11:15)

Shuxian Pan & Sabine Schulte im Walde (Stuttgart)
Degrees of Similarities between Spanish and Portuguese Varieties

Jonas Pitz (Hochschule Darmstadt)
Projekt DeTox: Detektion von Toxizität und Aggressionen in Internet-Beiträgen und -Kommentaren

Reinhard Rapp (Athena R.C., Magdeburg-Stendal, Mainz)

Semantic Role Labeling for Neural Machine Translation

Julia Schilling & Robert Fuchs (Hamburg):

Identifying keywords and phrases in German COVID-19 Twitter discourse

# Overview of workshop schedules

| AG | 13:45 | 14:15 | 14:45 | 15:15 |
|---|---|---|---|---|
| AG1: Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer<br><br>Towards a comparative historical dialectology: Evidence from morphology and syntax | Short welcome note<br><br>(13:50) Tamsin Blaxter (Cambridge)<br>How spatial evidence can help us understand morphosyntactic change: the dialectology of case loss in Middle Norwegian | | Carsten Becker (Marburg) & Oliver Schallert (München)<br><br>Areal variation in Middle High German: Methodological and quantitative aspects | Julia Hertel (Saarbrücken) & Daniel Hrbek (Osnabrück)<br><br>A mystery finally unravelled: The loss of the bipartite negation marker in Middle High German |
| AG2: Anton Benz, Manfred Krifka & Marvin Schmitt<br><br>Commitments in grammar and discourse | Benz, Krifka & Schmitt (ZAS)<br>Introduction | Neri Marsili (invited speaker, Bologna)<br>Commitment, saying, and deniability | | Alex Wiegmann (Bochum) & Neele Engelmann (Göttingen)<br>Is lying morally worse than misleading? |
| AG3: Katharina Hartmann & Malte Zimmerman<br><br>Long distance dependencies and the structure of embedded clauses in African languages | Katharina Hartmann (Frankfurt) & Malte Zimmerman (Potsdam)<br>Introduction, including a short presentation of "Terraling" by Frank Sode | Hermann Keupdjio (McGill)<br>Long-distance dependencies and "complement" CPs in Bamileke Medumba | Constantine Kouankem (Ngaoundéré)<br>Syntactic display and semantic functions of Medumba SVCs | Henry Fominyam (Potsdam)<br>Morpho-syntactic asymmetries in Awing wh-questions |
| AG4: Paola Fritz-Huechante & Antonio Machicao y Priemer<br><br>Change of State Verbs – Empirical and Theoretical Perspectives | Paola Fritz Huechante & Antonio Machicao y Priemer (HU Berlin)<br>Change of state verbs: State of the art | Fabienne Martin & Florian Schäfer (HU Berlin)<br>Two types of transitives with inchoative semantics | Louise McNally (invited speaker, Pompeu Fabra)<br>Change of state: From the BECOME operator to the mereotopology of events | |
| AG5: Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach<br><br>Visual communication. New theoretical and empirical developments | Cornelia Ebert (Frankfurt), Clemens Steiner-Mayr & Markus Steinbach (Göttingen)<br>Visual communication | Ellen Fricke (invited presentation, Chemnitz)<br>Multimodal deixis and semiotic complexity: Processes of code manifestation and code integration | | Irene Mittelberg (RWTH Aachen)<br>Iconicity – embodiment – image schemas. Towards a spectrum of different degrees of gesturally enacted schematicity |

| AG6: Anke Himmelreich & Johannes Mursell Optionality and non-optionality of syntactic movement | Anke Himmelreich & Johannes Mursell (Frankfurt) Introduction | Gereon Müller (invited speaker, Leipzig) On the optionality of local order-preserving displacement | | David Medeiros (The University of Arizona) A universal supergrammar of neutral word order accounts for U20, FOFC, the HMC, and more |
|---|---|---|---|---|
| AG7: Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer The diachrony of word class peripheries | Introduction | Antje Dammel (invited speaker, Münster) Love it, change it, or leave it. Paths of change of word class-peripheral items | | Annika Vieregge (Kiel) Periphery or second prototype? Genitive prepositions in German |
| AG8: Jenny Audring & Kristian Berg How productive is derivational morphology? | Introduction | Harald Baayen (invited speaker), Elnaz Shafaei-Bajestan, Yu-Ying Chuang & Maria Heitmeier (Tübingen) Productivity in inflection | | Elizabeth Pankratz (Edinburgh), Titus von der Malsburg (Stuttgart) & Shravan Vasishth (Potsdam) An entropy-based approach to measuring morphological productivity |
| AG9: Julia Lukassek, Dina Serova & Britta Schulte Narration in context: Between linguistic theory and empirical operationalization | Julia Lukassek, Britta Schulte & Dina Serova (HU Berlin) Introduction | Sonja Zeman (invited speaker, LMU München) The grammar of narration | | Alexander Teixeira Kalkhoff (Regensburg), Isabel Colón de Carvajal & Luisa Acosta Cordoba (Lyon) The NARRANDO project: Spanish storytelling in talk-in-interaction |
| AG10: Robin Lemke, Lisa Schäfer, Heiner Drenhaus & Ingo Reich Discourse obligates – How and why discourse limits the way we express what we express | Robin Lemke, Lisa Schäfer, Heiner Drenhaus & Ingo Reich (Saarland) Discourse obligates! – An introduction | Swantje Tönnis (Stuttgart) Cleft sentences reduce information density in discourse | Tatjana Scheffler (Bochum), Michael Richter (Leipzig) & Roeland van Hout (Radboud) Information theory and German intensifiers | Radim Lacina (Potsdam), Nicole Gotzner (Potsdam) & Patrick Sturt (Edinburgh) Alternatives in broad-scope focus: Testing Rooth's theory on VP-constituents |

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|---|---|---|---|---|
| AG12: Mailin Antomo, Natha-lie Staratschek & Sonja Taigel<br><br>The graphematics/pragmatics interface (Kurz-AG) | Einführung/Introduction | Rita Finkbeiner (invited speaker, Mainz)<br><br>On the interaction between ty-pography and pragmatics. The case of newspaper headlines | | Daniel Gutzmann (Köln) & Ka-tharina Turgay (Landau)<br><br>Expressive Punctuation!?!! Punctuation between gram-mar(?) and pragmatics! |
| AG14: Lars Meyer & Antje Strauß<br><br>(Why) is Language (Not) Rhyth-mic? (Kurz-AG) | Antje Strauß (Konstanz)<br><br>Testing prerequisites of neural entrainment and its functional limitations for speech pro-cessing | Anna Robinson, Ann Bradlow & Jennifer Cole (Northwestern)<br><br>A role for rhythm in speech in-telligibility | Alexis D. MacIntyre, Ceci Qing Cai & Sophie K. Scott (Univer-sity College London)<br><br>Pushing the envelope: Evaluat-ing speech rhythm with different envelope extraction techniques | Kanad Mandke, Sheila Flana-gan, Annabel Macfarlane, Fiona Gabrielczyk, Angela Wil-son (Cambridge), Joachim Gross (Münster) & Usha Gos-wami (Cambridge)<br><br>Linguistic rhythm timescale defi-cits in children with dyslexia |

| AG | 16:30 | 17:00 | 17:30 |
|---|---|---|---|
| AG1: Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer<br><br>Towards a comparative historical dialectology: Evidence from morphology and syntax | Andreas Klein (Mainz)<br><br>Accusativism across varieties and time | Christina Katsikadeli (Wien) & Ioannis Fykias (Salzburg)<br><br>A corpus-based analysis of adnominal genitive constructions in varieties of Post-Classical and Byzantine Greek | Johanna Meyer (Münster)<br><br>Translation practice as an indicator of syntactic conventions? On the imitation of orality in Middle Low German 15th and 16th ct. 'folk books' |
| AG2: Anton Benz, Manfred Krifka & Marvin Schmitt<br><br>Commitments in grammar and discourse | Johannes Heim (Newcastle)<br><br>Deconstructing commitment: Lessons from the study of rising declaratives | Soichiro Kinoshita (Tokyo)<br><br>Can a commitment be ironic? | Jesse Harris (UC Los Angeles)<br><br>Commitments de lingua in transparent free relatives |
| AG3: Katharina Hartmann & Malte Zimmerman<br><br>Long distance dependencies and the structure of embedded clauses in African languages | Himidan Hassen, Peter Jenks (UC Berkeley) & Sharon Rose (UC San Diego)<br><br>Topic and Focus in Tira | Invited talk 1: Vicki Carstens (UConn)<br><br>Addressee agreement in Bantu and speech act projections | |
| AG4: Paola Fritz-Huechante & Antonio Machicao y Priemer<br><br>Change of State Verbs – Empirical and Theoretical Perspectives | Patrick Brandt (IDS Mannheim)<br><br>Reflexive binding, order and change of State in certain German prefix and particle verb types | Jakob Maché (Lisbon)<br><br>Building resultative serial verb constructions in Benue-Kwa languages | Yoko Sugioka (Keio)<br><br>Syntax-semantics discrepancy in deadjectival and inherently-directed motion verbs in Japanese |
| AG5: Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach<br><br>Visual communication. New theoretical and empirical developments | Arnulf Deppermann (IDS Mannheim)<br><br>Ecologically adaptive multimodal practice: Varieties of gestural and verbal conduct in recipient designed spatial reference | Cécile Meier (Frankfurt)<br><br>Arbitrary mapping and object frequency | Naomi Francis, Patrick Georg Grosz & Pritty Patel-Grosz (Oslo)<br><br>Analyzing the 'throwing away' gesture as a common ground management device |
| AG6: Anke Himmelreich & Johannes Mursell<br><br>Optionality and non-optionality of syntactic movement | Zetao Xu (Chinese University of Hong Kong)<br><br>A case of pseudo-optionality resulted from language contact | Adrian Stegovec (UConn)<br><br>The third way: Optional object reordering as ambiguous labeling resolution | Volker Struckmeier (Bochum)<br><br>Optional for who? Optional phenomena do not necessitate optional syntactic operations |

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| **AG7: Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer** <br><br>The diachrony of word class peripheries | Wiltrud Mihatsch & Désirée Kleineberg (Tübingen) <br><br>The diachronic instability of Spanish object mass nouns: A peripheral category? | Jan Junglas (HU Berlin) <br><br>A diachronic approximation to singulative number marking within north-eastern Africa's tripartite number languages | Javier Caro Reina (Köln) <br><br>The onymic status of unique nouns in Romance languages |
| **AG8: Jenny Audring & Kristian Berg** <br><br>How productive is derivational morphology? | Katrin Hein & Sasha Wolfer (IDS, Mannheim) <br><br>German affixes of negation: Productivity and affective content | Tanja Säily (Helsinki) <br><br>Diachronic suffix competition across registers and social groups in Early and Late Modern English | Diskussion: Methodologie |
| **AG9: Julia Lukassek, Dina Serova & Britta Schulte** <br><br>Narration in context: Between linguistic theory and empirical operationalization | Peter Hofmann, Anke Holler, Thomas Weskott (Göttingen) <br><br>There, and back again: On marking the boundaries of free indirect discourse | Jakob Egetenmeyer (Köln) <br><br>Overshooting the narrative goal: The case of TAM forms in football language | Carolyn Anderson (Wellesley College) <br><br>Protagonist-mediated perspective |
| **AG10: Robin Lemke, Lisa Schäfer, Heiner Drenhaus & Ingo Reich** <br><br>Discourse obligates – How and why discourse limits the way we express what we express | Maja Linke & Michael Ramscar (Tübingen) <br><br>How communicative constraints shape the structure of lexical distributions | Hannah Rohde (invited speaker, Edinburgh) <br><br>What's at issue? What's the point? | |
| **AG12: Mailin Antomo, Nathalie Staratschek & Sonja Taigel** <br><br>The graphematics/pragmatics interface (Kurz-AG) | *- CHANGE -* <br>Nathalie Staratschek (Wuppertal) <br>What we "mean" when we use air quotes | Lynne Cahill (Sussex) <br><br>What's in a kiss? The pragmatics of orthographic kisses in UK CMC | *- CHANGE -* Markus Spitzer & Thomas Weskott (Göttingen) <br><br>Starstruck – An experimental study on the graphemic representation of gender neutrality in German |
| **AG14: Lars Meyer & Antje Strauß** <br><br>(Why) is Language (Not) Rhythmic? (Kurz-AG) | T. Rathcke (Konstanz), C.-Y. Lin (Huddersfield), S. Falk (S. Nouvelle Paris-3 / Montreal) & S. Dalla Bella (Montreal) <br>When language hits the beat: Studying rhythm in stimuli of varying complexity and across prosodically diverse languages by means of sensorimotor synchronisation | Alan Langus & Barbara Höhle (Potsdam) <br><br>Pupillary entrainment to natural speech reveals rhythmic differences between languages | Maria Clemencia Ortiz-Barajas (Paris), Léo Varnet (École Normale Supérieure), Ramón Guevara (Padua), Christian Lorenzi (École Normale Supérieure) & Judit Gervain (Padua) <br>The brain synchronization to the quasi-rhythmicity of language |

| AG | 09:00 | 09:30 | 10:00 |
|---|---|---|---|
| **AG1: Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer**<br><br>Towards a comparative historical dialectology: Evidence from morphology and syntax | Bettelou Los (Edinburgh)<br><br>The scope for variation in syntax | | Adam Farris & Aryaman Arora (Georgetown)<br><br>DIPI: Dependency Parsing for Ashokan Prakrit Historical Dialectology |
| **AG2: Anton Benz, Manfred Krifka & Marvin Schmitt**<br><br>Commitments in grammar and discourse | Anna Kocher (KU Eichstätt)<br><br>Commitment attribution and root-clause complementizers | Hans-Martin Gaertner ((XRCL Budapest & IAWDS) & Jens Michaelis (Bielefeld)<br><br>Farewell to V2 declaratives? | Xavier Villalba (U Autònoma de Barcelona)<br><br>Commitments to exclamations |
| **AG3: Katharina Hartmann & Malte Zimmerman**<br><br>Long distance dependencies and the structure of embedded clauses in African languages | Invited Talk 2: Alassane Kiemtoré (Stuttgart)<br><br>The function of complementizers and its consequences for clausal embedding the case of *ko* in Jula | | Daniel Aremu (Frankfurt)<br><br>Subject and non-subject wh-questions asymmetry in Akure |
| **AG4: Paola Fritz-Huechante & Antonio Machicao y Priemer**<br><br>Change of State Verbs – Empirical and Theoretical Perspectives | Nicole Gotzner (Potsdam) & Diana Mazzarella (Neuchâtel)<br><br>Polarity and standards of comparison: The interpretation of absolute adjectives in the *not very* construction | Stephanie Solt (invited speaker, ZAS)<br><br>On the underspecification of measurement | |
| **AG5: Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach**<br><br>Visual communication. New theoretical and empirical developments | Volker Gast (Jena)<br><br>Communicating with the eyebrows. A corpus-based study of facial articulation in interviews with David Letterman | Ronny Bujok, Antje Meyer & Hans Rutger Bosker (MPI for Psycholinguistics)<br><br>The role of visual articulatory vs. gestural cues in audiovisual lexical stress perception | Patrick Georg Grosz (Oslo), Elsi Kaiser (U Southern California) & Francesco Pierini (École des Hautes Études en Sciences Sociales)<br><br>Beat-related face emoji in multimodal written communication |

| AG6: Anke Himmelreich & Johannes Mursell<br><br>Optionality and non-optionality of syntactic movement | Julia Bacskai-Atkari (Konstanz)<br><br>Extraposition in German comparatives and the optionality of right-ward movement | Irene Amato (Leipzig)<br><br>Italian past participle agreement overt/covert A-movement | András Barany & Jutta Hartmann (Bielefeld)<br><br>Information structurally triggered movement: Apparent optionality? |
|---|---|---|---|
| AG7: Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer<br><br>The diachrony of word class peripheries | Katharina Paul & Marco Coniglio (Göttingen)<br><br>Adjectival adverbs or adverbial adjectives? How diachrony can explain synchrony | Martina Werner, Nina C. Rastinger & Sophia M. Beiter (Wien)<br><br>A phantom in the history of German? On the emergence of relational adjectives | Carlotta J. Hübener (Bamberg)<br><br>From *kaum Platz findend* to *am platzsparendsten*. A diachronic study on German noun-participle combinations as peripheral adjectives |
| AG8: Jenny Audring & Kristian Berg<br><br>How productive is derivational morphology? | Camiel Hamans (Amsterdam)<br><br>Clipping and productivity | Luise Kempf (Bern) & Stefan Hartmann (Düsseldorf)<br><br>Productivity factors and affix life stages | |
| AG9: Julia Lukassek, Dina Serova & Britta Schulte<br><br>Narration in context: Between linguistic theory and empirical operationalization | Monika Fludernik (invited speaker, Freiburg)<br><br>Diachronic narratology: Linguistic Perspectives on the historical development of narrative within the framework of English studies | | Boris Maslov (Oslo)<br><br>- *CANCELLED* - |
| AG10: Robin Lemke, Lisa Schäfer, Heiner Drenhaus & Ingo Reich<br><br>Discourse obligates – How and why discourse limits the way we express what we express | Markus Bader & Yvonne Portele (Frankfurt)<br><br>Producing referential expressions: No need to invoke information theory | Vinicius Macuch (Osnabrück / ZAS) & E Jamieson (Southampton)<br><br>Interpreting negated polar questions and tracking beliefs in online discourse processing | Annemarie Verkerk, Tania Avgustinova, Ekaterina Lapshinova-Koltunski, Katrin Menzel, Stefania Degaetano-Ortlieb & Luigi Talamo (Saarland)<br><br>Information status investigated using surprisal: differences across syntactic roles and referential expressions in European languages |
| AG12: Mailin Antomo, Nathalie Staratschek & Sonja Taigel<br><br>The graphematics/pragmatics interface (Kurz-AG) | Annika Labrenz & Heike Wiese (HU Berlin)<br><br>(Inter-)subjective discourse functions of emoji in instant messaging | Marianne Rathje (Danish Language Council) & Tina Thode Hougaard (Aarhus)<br><br>"To underline tone and point" – a Danish survey of reasons for using emojis | Helen Magowan (Cambridge)<br><br>Pre-typographic graphematic/pragmatic competence |

| AG14: Lars Meyer & Antje Strauß (Why) is Language (Not) Rhythmic? (Kurz-AG) | Gerrit Kentner (Frankfurt) & Isabelle Franz (MPI, empirische Ästhetik / Frankfurt) Rhythmic production, rhythmic parsing, and limits of rhythm in language processing | Isabelle Franz (MPI, empirische Ästhetik / Frankfurt) Influences of (non-binary) rhythm on word order in German | Lars Meyer (MPI, Human Cognition & Brain Sciences / University Hospital Münster) From acoustic to abstract to neural rhythms |
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| AG | 11:15 | 11:45 | 12:15 |
|---|---|---|---|
| AG1: Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer<br><br>Towards a comparative historical dialectology: Evidence from morphology and syntax | Anna Pineda (Paris / Köln)<br><br>Dialectal differences in the development of differential object marking in the diachrony of Catalan | Louise Esher (Paris)<br><br>How parallel longitudinal studies of inflection reveal areal (dis)continuities in diachrony | Moreno Mitrović (Berlin)<br><br>Dialectological-diachronic grammar of conjunction in Archaic Indo-Iranian |
| AG2: Anton Benz, Manfred Krifka & Marvin Schmitt<br><br>Commitments in grammar and discourse | Mingya Liu, Stephanie Rotter (HU Berlin) & Anastasia Giannakidou (Chicago)<br><br>Bias and modality in conditionals | Zahra Mirrazi (U Mass, Amherst)<br><br>Performative conditionals | Beata Trawinski (IDS Mannheim)<br><br>Mental attitude verbs between performatives and constatives. A view from Polish |
| AG3: Katharina Hartmann & Malte Zimmerman<br><br>Long distance dependencies and the structure of embedded clauses in African languages | Travis Major (USC), Justine Sikuku (Moi) & Michael Diercks (Pomona)<br><br>Reanalyzing Bukusu "complementizer agreement" | John Gluckmann (Kansas)<br><br>Copulas and complementizers in Kinyamulenge | Aron David Finholt (Kansas)<br><br>On complementizer choice in Swahili |
| AG4: Paola Fritz-Huechante & Antonio Machicao y Priemer<br><br>Change of State Verbs – Empirical and Theoretical Perspectives | Shiao Wei Tham (Singapore)<br><br>Two dimensions in states of physical disturbance | John Beavers (Texas), Andrew Koontz-Garboden (Manchester) & Scott Spicer (Texas)<br><br>Scales in lexical decomposition: The role of the root | |
| AG5: Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach<br><br>Visual communication. New theoretical and empirical developments | Patrick C. Trettenbrein, Matteo Maran, Nina-Kristin Pendzich, Jan Pohl, Thomas Finkbeiner, Angela D. Friederici & Emiliano Zaccarella (MPI for Human Cognitive and Brain Sciences & University of Göttingen)<br><br>Can detection of extraneous visual signals reveal the syntactic structure of sign language? | Anna Kuder (Warsaw / Köln)<br><br>Palm-up and throw-away gestures in Polish, German, and Russian Sign Language – A corpus-based study | Sarah Bauer (Hamburg)<br><br>Looking at place of articulation as a first approach to identifying metaphors of German Sign Language in the domain of 'cognition' |

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| **AG6: Anke Himmelreich & Johannes Mursell**<br><br>Optionality and non-optionality of syntactic movement | Opportunity to discuss the talks | **Andreas Blümel (Göttingen)**<br><br>Reanalyzing (non-)DET-drop and (non-) ECP in the nominal domain | **Aviv Schoenfeld (Tel Aviv)**<br><br>Optional NP raising in partitives |
| **AG7: Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer**<br><br>The diachrony of word class peripheries | **Hendrik De Smet (Leuven) & Lisa Lambrechts (Leuven) (invited speakers)**<br><br>Categorially a-drift: The history of English *dare* | | **Ulrike Schneider (Mainz)** Prototypical vs. peripheral verbs: Can transitivity help us tell the difference? |
| **AG8: Jenny Audring & Kristian Berg**<br><br>How productive is derivational morphology? | **Sabine Arndt-Lappe (Trier)**<br>Syntac-ic or syntac-ical? Predicting individual productivity with an analogical model | **Elisabeth Huber (LMU Munich)**<br>Can insights from compound productivity enrich the understanding of productivity in derivation? | Diskussion: Register und individuelle Faktoren |
| **AG9: Julia Lukassek, Dina Serova & Britta Schulte**<br><br>Narration in context: Between linguistic theory and empirical operationalization | **Michał Mrugalski (HU Berlin)**<br>Terrorist Realism as a narrative mode in Russian and Polish prose around 1900: Andrei Belyi, Leonid Andreev, and Stanisław Brzozowski | **Gohar Schnelle & Silke Unverzagt (HU Berlin)**<br>Narration in the service of monastic teaching: Special characteristics of narrative passages in Notkers Psalter | **Camilla Di Biase-Dyson (Macquarie University)**<br>How to tell tales in Ancient Egyptian – the real meaning of the word sḏd |
| **AG11: Detmar Meurers, Zarah Weiss**<br><br>Adaptive linguistic complexity: readability, developmentally proximal input, alignment (Kurz-AG) | **Gabriele Pallotti (Modena and Reggio Emilia)**<br>Linguistic complexity – the more is not always the better | | **Carolina Olszycka & Sandra Pappert (Heidelberg)**<br>Language barriers for adolescents and adults with low literacy: A corpus of written texts used in professional education |
| **AG13: Marcel Schlechtweg & Nanna Fuhrhop**<br><br>Interpunktion verpflichtet (Kurz-AG) | **Sebastian Bücking (Siegen)**<br>Schrift und Wahrheit: Das Rufzeichen als lexikalischer Operator für Verum | **Melitta Gillmann (Hamburg)**<br>Das Semikolon als Kohäsionsmittel | **Heike Wiese, Annika Labrenz & Hannah Hullmeine (HU Berlin)**<br>„Punkt-Punkt-Punkt" in Instant Messaging |
| **AG15: Natascha Elxnath & Stefan Engelberg**<br><br>Literal and figurative meanings of compounds (Kurz-AG) | **Joost Zwarts (Utrecht)**<br>*Tax havens* and *fiscal regimes*: metaphorical domains in compounding and modification | | **Maximilian Frankowsky (Leipzig)**<br>Metonymic shifts help to combine the functions of morphological and syntactic constructions in German ICCs |

| AG | 13:45 | 14:15 |
|---|---|---|
| AG1: Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer<br><br>Towards a comparative historical dialectology: Evidence from morphology and syntax | George Walkden & Alexander Pfaff (Konstanz)<br><br>Relic syntax and dialectal comparison: the adjectival article in early Germanic | |
| AG2: Anton Benz, Manfred Krifka & Marvin Schmitt<br><br>Commitments in grammar and discourse | Rebecca Woods (Newcastle) & Tom Roeper (U Mass, Amherst)<br><br>Learning to commit: an acquisition path for expressions of commitment in US and UK English | Yu'An Yang, Daniel Goodhue, Valentine Hacquard & Jeffrey Lidz (U Maryland)<br><br>Is that a question? Learning to identify questions in early speech to children |
| AG3: Katharina Hartmann & Malte Zimmerman<br><br>Long distance dependencies and the structure of embedded clauses in African languages | Rozenn Guérois (CNRS)<br><br>Subordinate clauses and tail-head linkage in Cuwabo narratives | Claudius P. Kihara (Chuka)<br><br>Cosubordination in Gikuyu |
| AG4: Paola Fritz-Huechante & Antonio Machicao y Priemer<br><br>Change of State Verbs – Empirical and Theoretical Perspectives | Elena Karagjosova (Freie Universität Berlin)<br><br>Change of state verbs and aspect in Bulgarian | - CHANGE -<br>Natasha Kasher & Aviya Hacohen (Ben-Gurion)<br><br>Does perfective aspect entail culmination in Russian? |
| AG5: Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach<br><br>Visual communication. New theoretical and empirical developments | Okan Kubus (invited speaker, Hochschule Magdeburg-Stendal)<br><br>*to be announced* | |
| AG6: Anke Himmelreich & Johannes Mursell<br>Optionality and non-optionality of syntactic movement | Elena Titov (invited speaker, University College London)<br><br>Optionality of wh-movement and the wh-parameter | |
| AG7: Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer<br><br>The diachrony of word class peripheries | Ekaterina Aplonova, Tatiana Nikitina, Izabela Jordanoska, Guillaume Guitang, Bethany Lycan, Abbie Hantgan-Sonko, Olga Kuznetsova & Leonardo Contreras Roa (CNRS, Paris)<br><br>At the periphery of the verbal category: Early-stage grammaticalization of quotative verbs | Maris Camilleri (Essex)<br><br>The pseudo-verbal word class category in Arabic |

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| **AG8: Jenny Audring & Kristian Berg**<br><br>How productive is derivational morphology? | **Jordan Kodner (Stony Brook University)**<br><br>Input sparsity and derivational relationships in Latin and Spanish | |
| **AG9: Julia Lukassek, Dina Serova & Britta Schulte**<br><br>Narration in context: Between linguistic theory and empirical operationalization | **Oliver Bunk (HU Berlin)**<br><br>When less is more: Variation in formal narrations of heritage speakers | **Katya Aplonova (CNRS LLACAN Paris)**<br><br>Narratives are unique data for exploring reported speech as a cross-linguistic category |
| **AG11: Detmar Meurers, Zarah Weiss**<br><br>Adaptive linguistic complexity: readability, developmentally proximal input, alignment (Kurz-AG) | **Karin Harbusch & Ina Steinmetz (Koblenz-Landau)**<br><br>How to identify easy-to-understand constructions beyond the scope of 'Leichte Sprache' (LS; easy-to-read German) by investigating treebanks of LS, spoken and written German | **Zarah Weiss & Detmar Meurers (Tübingen)**<br><br>Modeling teachers' language adaptivity in GSL classrooms |
| **AG13: Marcel Schlechtweg & Nanna Fuhrhop**<br><br>Interpunktion verpflichtet (Kurz-AG) | **Marcel Schlechtweg & Nanna Fuhrhop (Oldenburg)**<br><br>Quotes and pure quotation in English: Evidence from a reading-time study | **Natascha Raue & Álvaro Cortés Rodríguez (Kassel)**<br><br>The interplay between quotation and referentiality: An empirical investigation into name-informing constructions |
| **AG15: Natascha Elxnath & Stefan Engelberg**<br><br>Literal and figurative meanings of compounds (Kurz-AG) | **Natascha Elxnath (Tübingen)**<br><br>Schnelltest vs. schneller Test: a case study on the interpretation and usage of AN-compounds and AN-phrases | **Qi Yu & Regine Eckardt (Konstanz)**<br><br>Enigmatic compounds: how they act as source of attitudinal meaning |

| AG | 11:45 | 12:15 | 12:45 | 13:15 | 13:45 |
|---|---|---|---|---|---|
| AG1: Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer<br><br>Towards a comparative historical dialectology: Evidence from morphology and syntax | Miguel Gutierrez Mate (Augsburg)<br><br>"De-bound" morphemes in the process of creolization: the case of Palenquero Creole | Barbara Blaha Pfeiler (Mérida) & Stavros Skopeteas (Göttingen)<br><br>- CANCELLED - | Nathalie Fromm (Wuppertal)<br><br>Development of plural marking of former neutral a-stems in German dialects | Final discussion and farewell | |
| AG2: Anton Benz, Manfred Krifka & Marvin Schmitt<br><br>Commitments in grammar and discourse | Sarah Murray (invited, Cornell)<br><br>*to be announced* | | Natasha Korotkova (Konstanz)<br><br>Hearsay and (non-)commitment | Vesela Simeonova (Tübingen / Graz)<br><br>Evidential commitments and the addressee: A corpus study | Irina Pandarova (Lüneburg)<br><br>Epistemic adverbials are truth-conditional |
| AG3: Katharina Hartmann & Malte Zimmerman<br><br>Long distance dependencies and the structure of embedded clauses in African languages | Samuel Owoahene Acheampong (Frankfurt)<br><br>An account of the resumption and trace effect in ex-situ wh-extraction in Likpakpaanl | Samuel Alhassan Issah (Winneba) & Hasiyatu Abubakari (Legon)<br><br>Resumption as a repair mechanism in illicit movement: The case of Dagbani and Kusaal | Hermann Keupdjio (McGill)<br><br>Resumption at the syntax-semantics interface: The case of Bamileke Medumba | Invited Talk 3: Abigail Anne Bimpeh (ZAS)<br><br>'Fake' Logophors? The case of Ewe | |
| AG4: Paola Fritz-Huechante & Antonio Machicao y Priemer<br><br>Change of State Verbs – Empirical and Theoretical Perspectives | Athina Sioupi (Thessaloniki)<br><br>An account for change of state verbs cross-linguistically | Florian Schäfer, Despina Oikonomou, Fabienne Martin, Felix Golcher & Artemis Alexiadou (HU Berlin)<br><br>Anticausatives are weak scalar expressions: Experimental evidence from Greek | Stavroula Alexandropoulou & Nicole Gotzner (Potsdam)<br><br>Measurement scales and competition between alternatives | Margit Bowler, Emily Hanink, Jens Hopperdietzel, Andrew Koontz-Garboden (all: Manchester), Colin Bannard (Liverpool), Mike Everdell (Texas), Itamar Francez (Chicago), Kyle Jerro (Essex), Elise LeBovidge (Washington) & Stephen Nichols (Manchester) | Lea Heßler, Merle Weicker & Petra Schulz (Frankfurt)<br><br>Adjectives and telicity - An empirical study of resultative adjective constructions in German |

| | | | State/change of state lability and the meaning of verbhood | |
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| AG5: Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach<br><br>Visual communication. New theoretical and empirical developments | Jeremy Kuhn (invited speaker, Institut Jean Nicod)<br>Iconic representations of logical meaning | Emar Maier (Groningen)<br>Face emojis as use-conditional pictures | Nadine Bade (Potsdam), Philippe Schlenker & Emmanuel Chemla (Ecole Normale Supérieure)<br>Word learning with visual animations as a window into the Triggering Problem – introducing a new paradigm | Maria Esipova (Oslo)<br>From performatives to performances |
| AG6: Anke Himmelreich & Johannes Mursell<br>Optionality and non-optionality of syntactic movement | Johannes Mursell & Anke Himmelreich (Frankfurt)<br>Closing words | Workshop lunch / opportunity to discuss the talks | | |
| AG7: Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer<br>The diachrony of word class peripheries | Christian Forche (Leipzig)<br>German verbs – or nouns? or adjectives? – that cannot occur in V2 position: a diachronic perspective | Marius Albers (Siegen)<br>Particle-prefix combinations in German verb-formation | Johanna Weiser (Mainz)<br>Grammatical integration of loanwords and their diachronic perspective: An empirical study on English verbs in the German language | Maria Flaksman (Jena)<br>Imitative words as parts of speech: A diachronic approach | Final discussion |
| AG8: Jenny Audring & Kristian Berg<br>How productive is derivational morphology? | Veronika Mattes (Graz), Sabine Sommer-Lolei, Katharina Korecky-Kröll & Wolfgang U. Dressler (Wein)<br>Productivity of derivational morphology in the course of first language development | | Anke Lüdeling, Julia Lukassek & Anna Shadrova (HU Berlin)<br>Variation and productivity in German L1 and L2 nominal word-formation | Abschlussdiskussion | |

| AG9: Julia Lukassek, Dina Serova & Britta Schulte<br><br>Narration in context: Between linguistic theory and empirical operationalization | Robert Külpmann (Mainz)<br><br>Independently used German wenn-sentences as meta-narrative comments | Laura Rehberger (Wuppertal)<br><br>What drives narration forward? Microstructural semantics and pragmatics captured by situation theory | Luisa Gödeke (Göttingen)<br><br>The linguistic Structure of non-fictional statements | Melanie Andresen (Stuttgart)<br><br>Narration in academic language: A corpus linguistic approach based on verb morphology | Annette Gerstenberg (Potsdam)<br><br>On the margins of narration |
|---|---|---|---|---|---|
| AG11: Detmar Meurers, Zarah Weiss<br><br>Adaptive linguistic complexity: readability, developmentally proximal input, alignment (Kurz-AG) | Xiaobin Chen (Tübingen)<br>ICALL offering individually-adaptive input: Effects of complex input on L2 development | | Merle Weicker, Rabea Lemmer & Petra Schulz (Frankfurt)<br><br>Input for second language learners benefits from linguistic insights: the case of dative | Sandra Birzer (Bamberg) & Heike Zinsmeister (Hamburg)<br><br>Employing criterial features for assessing text complexity | Diskussion |
| AG13: Marcel Schlechtweg & Nanna Fuhrhop<br><br>Interpunktion verpflichtet (Kurz-AG) | Luzia Pätzel (Erlangen-Nürnberg)<br><br>Punctuation in German 19th- and early 20th-century patient letters | Karsten Rinas (invited speaker, Olmütz)<br>Gebrauch und Reflexion des Gedankenstrichs im 18. Jahrhundert | | Laura Scholübbers (Oldenburg)<br><br>Der gegenwärtige Gedankenstrichgebrauch | Niklas Reinken (Leipzig)<br>Die Länge der horizontalen Striche |
| AG15: Natascha Elxnath & Stefan Engelberg<br>Literal and figurative meanings of compounds (Kurz-AG) | Matthias Urban (Tübingen)<br><br>Metaphorical processes in compounds: a systematic cross-linguistic study | Davide Mocci (Scuola)<br><br>Metaphors and the internal order of Sanskrit compounds | Liliane Hodieb (Institut National des Langues et Civilisations Orientales)<br>Compounding in Wushi: the 'word vs. phrase' dichotomy and the role of context | Caterina Saracco (Torino)<br>Bahuvrīhi compounds in Old English: the role of figurative language | Martin Schäfer (Düsseldorf) & Barbara Schlücker (Leipzig)<br>The figurative potential of adjective noun compounds |

# Part II

## Plenary talks

# Binding and being bound

Wednesday 23 Feb 2022, 09:30 – 10:30



## Elin McCready

Aoyama Gakuin University, Tokyo

Our words bind us, as in the slogan "my word is my bond", which is the theme of this year's DGfS. This talk explores two senses of the ways our words bind us. The first of these is the familiar sense of commitment. Here I focus on one aspect of commitment and how it arises: the notion of sincerity, in two aspects: the reliability of the speaker with respect to truth and to communication of their social positioning, and the broader notion of trust, which can be viewed as arising from reliable communication about values and may not be linked in a strict sense to truth at all. The second kind of binding I discuss is less visible. Many parts of natural language come grounded on assumptions about social and metaphysical the world, and about what kinds of agents can be centred as the locus of subjectivity. I consider several such grounds, taking honorification, politeness, and the anthropomorphic nature of perspective-taking as my main examples. The result has implications for the ways in which we can use language to discuss social issues and problems of the nonhuman and climate change.

# Pragmatic Sociolinguistics: Formalizing the Social World

Wednesday 23 Feb 2022, 11:30 – 12:30

## Heather Burnett

University of Paris

This presentation argues that the formalization of a certain class of sociological theories into game-theoretic models can help researchers in formal semantics, pragmatics and analytical philosophy of language get a handle on an area that has long been resistant to formal study: the social world. More specifically, we study the 'Pragmatic Sociology' framework of Boltanski & Thévenot (1991) and argue that, when applied to language, it can be integrated with current models of language use and interpretation that are based on game-theoretic principles, such as Franke (2009), Frank & Goodman (2012) and Burnett (2019). Although Boltanski & Thévenot use language that is suggestive of mathematical models used in economics, the fine details of framework that they lay out in their book remain underspecified. Furthermore, although Pragmatic Sociology has spawned a wealth of sociological work in the past 30 years (see Lamont & Thévenot 2000 for a sample), the influence of these ideas in linguistics and philosophy has been minimal. We argue that this framework (and other more "practice" oriented social theories) has particular properties that make it a good candidate to be integrated with current linguistic theories, and with cognitive science more generally. We therefore give a formalization of Pragmatic Sociology's main units: 'polities', 'worlds' and 'orders of worth', and show how they can

be extended with ideas from formal game-theoretic pragmatics to provide a general model of how language influences and is influenced by the social world. We argue that such a formalization has two major benefits: firstly, it will result in a better understanding of major aspects of Boltanski & Thévenot's theory, which could benefit sociologists, and, secondly, it will help provide better foundations for linguists and philosophers studying linguistic meaning from a mathematical perspective.

Thévenot, L., & Boltanski, L. (1991). *De la justification. Les économies de la grandeur*. Paris: Gallimard.

Burnett, H. (2019). Signalling games, sociolinguistic variation and the construction of style. *Linguistics and Philosophy*, 42(5), 419-450.

Frank, M. C., & Goodman, N. D. (2012). Predicting pragmatic reasoning in language games. *Science*, 336(6084), 998-998.

Franke, M. (2009). *Signal to act: Game theory in pragmatics*. Amsterdam: Institute for Logic, Language and Computation.

Lamont, M., & Thévenot, L. (2000). *Rethinking comparative cultural sociology: Repertoires of evaluation in France and the United States*. Cambridge: Cambridge University Press.

# Truth and social meaning

Wednesday 23 Feb 2022, 18:30 – 19:30



<span style="color:teal">Penelope Eckert</span>
Stanford University

Linguists treat language as referring to the social world, perhaps expressing things in the social world, but still maintaining language and the social world as separate structural objects. This has been as true in sociolinguistics as in semantics and pragmatics. While this objectification of language and of the social can be analytically useful, it misses the fact that language is a social practice – that all meaning is constructed in a changing world, in the minute construals that are the centre of every semiotic act. And as change is fundamental to social as well as biological life, one could say that at a very elemental level, this process of construal is our bond. As we move from less volatile semantic content 'out' to the performative extreme of sociolinguistic variation, meaning construction engages increasingly with the here and now in the speaker's navigation of the social landscape. At this point, one could say "my style is my bond".

# The normative order of talk-in-interaction: Expectation and obligation vs. scopes for choice and negotiation

Friday 25 Feb 2022, 10:00 – 11:00

## Arnulf Deppermann

Leibniz-Institute für Deutsche Sprache, Mannheim

From their very beginning, pragmatic theories have considered the fulfilment of normative obligations as essential preconditions for the felicitous performance of speech acts (Austin 1962, Searle 1968). More recently, 'commitments', in particular with respect to assertions, have moved centre stage in pragmatic theorizing (Geurts 2019). While these approaches adopt a normative perspective focusing on isolated speech acts, I propose to look at how participants in naturally occurring social interaction hold each other accountable for pragmatic obligations and normative expectations that they have created by their verbal actions. In social interaction, two issues concerning normative expectations inevitably arise whenever a turn-at-talk is complete: Is there a response due from co-participants? And if so, what kind of response, i.e., which type of action is normatively expected as a next action, given the type of action that the current turn has implemented?

In Conversation Analysis, but also in similar ways in other approaches as the German Dialoganalyse (Hundsnurscher 2001), these questions have been answered by proposing models of sequence

organization. At the heart of these models lie concepts of projection, conditional relevance, and preference (Schegloff 1968, 2007), which account for the ways in which first actions (like questions) make second actions (like answers) expectable and their absence accountable. More recent research, however, has shown that many action-types do not fit this picture. Stivers & Rossano (2010) suggest that specific responses are not necessarily made relevant by specific action-types per se. Instead, responses are mobilized to different degrees by virtue of specific linguistic and nonverbal resources. (Stivers/Rossano 2010).

Building on this research, I will zoom in into a specific kind of practice, namely declaratives of trouble (Kendrick/Drew 2016; Fox/Heinemann 2021). In line with prior research, I will show that the declarative format in many cases rather invites than strictly normatively requires a response (cf. Gubina i.pr.). More specifically, declaratives of trouble are responded to by a wide range of different actions, whose occurrence hinges on pragmatic factors related to the nature of the trouble, speaker's responsibility for the trouble, speaker's vs. recipient's competence and availability for remediating the trouble, etc.

As a conclusion, in many pragmatic contexts, obligation and normative expectation concerning next actions rather seem to be an object of negotiation within a scope for choice and agency of the responder. Instead of strict expectations concerning the occurrence of responses and specific action types, many actions allow for a wider range of possible responses. For the responder, this means that often it is not important to produce a specific action, but that s/he is able to make their actions accountable as acceptable next moves within a cooperative context.
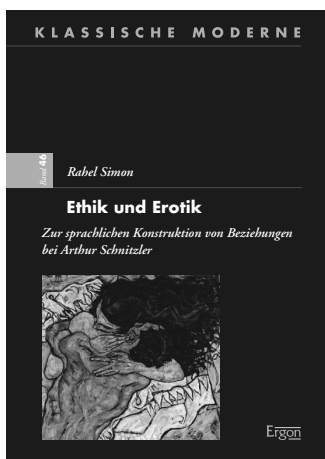
Ohne Zweifel der Klassiker

Sorgt für Klarheit und gibt Sicherheit bei Grammatik, Stil und Rechtschreibung.

# Ergon

# Die ethisch-pragmatische Sprachauffassung Arthur Schnitzlers zur Untreue



**KLASSISCHE MODERNE**

*Rahel Simon*

**Ethik und Erotik**

*Zur sprachlichen Konstruktion von Beziehungen bei Arthur Schnitzler*

Ist es möglich, untreu zu sein und trotzdem tugendhaft zu bleiben? Schnitzler kreist in seinen mittleren Dramen immer wieder um diese Frage. Mit der Sprachkrise um 1900 im Hintergrund analysiert die vorliegende Arbeit Schnitzlers pragmatische wie ethische Sprachauffassung.

Letztere schafft die notwendigen Voraussetzungen, um in moralisch-erotischen Grenzsituationen individuelle Integrität zu bewahren. Zudem zeigen die Analysen das bisher verdeckte feministische Potential der Dramen auf, etwa dann, wenn Schnitzler die Frauenfiguren ganz im Sinne des emanzipatorischen Zeitgeistes als selbstbestimmte und nach Entwicklung strebende Individuen entwirft, denen es gelingt, sich der patriarchalen Ordnung zu entziehen.

# Lin|gu|is|tik

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- Datenbank „Enhanced Electronic Grammars Online"
- Datenbank „English-Corpora.org"

Ein auffallendes Merkmal in den deutschen Basisdialekten stellt die sogenannte „Negationskongruenz" oder auch „doppelte Negation" dar. Umso erstaunlicher ist es, dass bisher nur selektiv zu einzelnen Dialekten geforscht wurde, nicht jedoch eine mikrotypologisch angelegte, korpusbasierte Arbeit zu diesem Phänomen vorliegt. Diese Forschungslücke schließt Ann-Marie Moser: Sie identifiziert zwei verschiedene Typen der Negationskongruenz und legt dar, dass diese Negationskonstruktionen unterschiedlich im Raum verteilt sind. Die Negationskongruenz ist nicht obligatorisch, sondern optional – während Ansätze aus dem Minimalismus nur beschränkt mit der Optionalität umgehen können, bietet sich eine Analyse im Rahmen der Optimalitätstheorie an. Eine qualitativ angelegte Datenerhebung im oberdeutschen Raum bestätigt, dass sich Sprecherinnen und Sprecher des Alemannischen und

Bairischen in der Wahl der Negationskonstruktion und auf pragmatischer Ebene unterscheiden. Schließlich geht Moser der Frage nach, warum im Standarddeutschen die Negationskongruenz nicht möglich ist, in allen deutschen Dialekten hingegen schon.

### DIE AUTORIN

Ann-Marie Moser arbeitet nach ihrem Studium und ihrer Promotion in Freiburg/Br., Eichstätt, Paris und München seit 2019 als Postdoc am Deutschen Seminar der Universität Zürich. Aktuell vertritt sie eine Professur in Hamburg. Ihre Forschungsinteressen umfassen syntaktische (Mikro-) Variation und Wandel sowie interne als auch externe Faktoren, die dafür verantwortlich gemacht werden können. Darüber hinaus interessiert sie sich für Datenerhebung und quantitative Ansätze zur Datenanalyse.

# Das einbändige Handbuch zum Thema DaF und DaZ

→ Das Handbuch präsentiert DaF und DaZ in einem Band (gemeinsame Grundlagen, unterschiedliche Schwerpunkte)
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→ Thema von dauerhafter Aktualität und Relevanz

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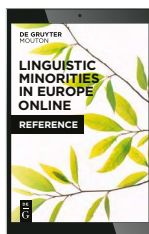
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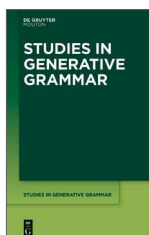
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# BUCHTIPP

Jörn Albrecht, Gunter Narr (Hrsg.)

# Geschichte der romanischen Länder und ihrer Sprachen

Innerromanischer und deutsch-romanischer Sprachvergleich. Mit besonderer Berücksichtigung der Dacoromania. Festschrift für Rudolf Windisch

Der Sammelband ist dem bekannten Daco-Romanisten Rudolf Windisch gewidmet. Die Leserinnen und Leser dürfen also zurecht viele Informationen zum Balkanromanischen und zur Geschichte und Geographie Südosteuropas erwarten. Einen weiteren thematischen Schwerpunkt bilden Frankreich, seine Sprache, seine Ideengeschichte und seine Literatur. Nicht zuletzt informiert der Band auch über die Geschichte der romanischen Sprachwissenschaft und vermittelt Einblicke in die lebhafte, nicht immer emotionsfreie Diskussion, die zwischen den führenden Vertretern dieser Disziplin geführt wurde.

## Susanne Günthner / Juliane Schopf / Beate Weidner (Hrsg.)

## Gesprochene Sprache in der kommunikativen Praxis

Analysen authentischer Alltagssprache und ihr Einsatz im DaF-Unterricht

In der Inlands- und Auslandsgermanistik besteht inzwischen Konsens darüber, dass mündliche Kommunikation in interaktionalen Zusammenhängen gleichermaßen zum Fremdspracherwerb gehört wie schriftliche Ausdrucksfähigkeit. Damit eine erfolgreiche Heranführung an gesprochensprachliche Interaktionen in der Zielsprache gelingen kann, fordern Lehrende und Lernende seit Längerem die Vermittlung von „realistischem Deutsch" im Unterrichtskontext. Dazu ist es wichtig, dass den Lehrenden zunächst grundlegendes Wissen im Bereich der Strukturen und Praktiken gesprochener Sprache zugänglich gemacht wird, um eine sinnvolle Integration der Inhalte in den Unterricht zu garantieren. Zudem bedarf es einer konkreten Didaktisierung der Ergebnisse zum Einsatz im Unterricht.

## Mathilde Hennig / Robert Niemann (Hrsg.)

## Ratgeben in der spätmodernen Gesellschaft

Ansätze einer linguistischen Ratgeberforschung

Unsere spätmoderne Gesellschaft ist heute mehr denn je eine Beratungs- und Ratgebegesellschaft – nahezu zu jedem Thema und in jeder medialen Form gibt es entsprechende Angebote. Mit dieser Vielgestaltigkeit scheinen nicht nur Einflüsse auf die sprachliche Ratgebepraxis als solche, sondern zugleich auch auf etablierte Vorstellungen von Normativität oder dem Verhältnis von Experten und Laien einherzugehen. Hieraus ergibt sich ein umfassender und zum Teil hochkomplexer Untersuchungsgegenstand, der aus linguistischer Perspektive bisher lediglich in ersten Ansätzen untersucht wurde. Der Band setzt hier an und versucht, einen Beitrag zur weiteren Erfassung dieses Gegenstands zu leisten. Neben Beiträgen zur linguistischen Beschreibung der Praktiken des Ratgebens in verschiedenen medialen Formaten und Themenfeldern bietet der Band auch eine Auseinandersetzung mit der Frage, welche Rolle die Linguistik als ratgebende Disziplin in gesellschaftlich relevanten Fragen zum Sprachgebrauch spielt.
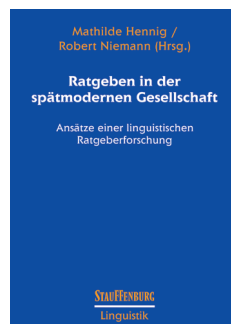
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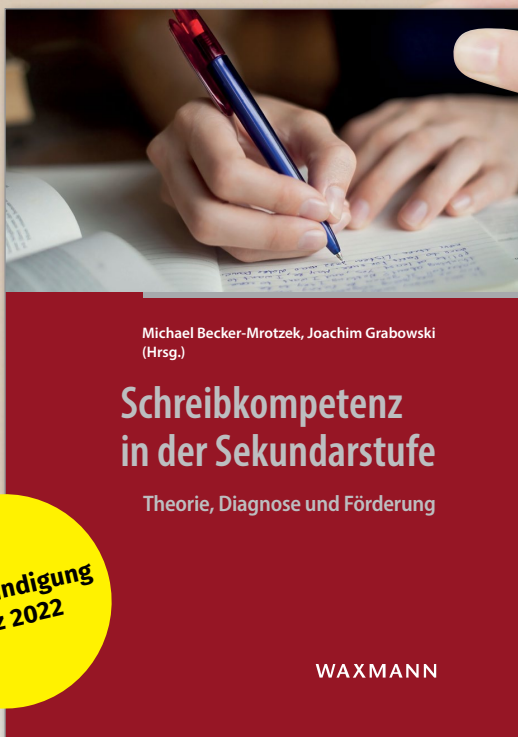
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# Schreibkompetenz in der Sekundarstufe

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# Schreibkompetenz in der Sekundarstufe

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# Part III

## Workshop abstracts

# Towards a comparative historical dialectology: evidence from morphology and syntax

Sophie Ellsäßer, Ann-Marie Moser & Lea Schäfer

# How spatial evidence can help us understand morphosyntactic change: the dialectology of case loss in Middle Norwegian

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In historical linguistics, we have traditionally assumed that dialectology is descriptive, having little bearing on the *how*s and *why*s of language change. In this talk, I will argue that in making this assumption we lose invaluable evidence with broader relevance than dialectology alone.

I first examine the loss of nom.sg. *-r*, which disappeared in Continental Nordic. This led to the nom. and acc. becoming identical in a key context, an important step in the general loss of the nom.-acc. distinction from these languages. Different accounts see such case loss as the consequence of sound change, (morpho)syntactic change, or of contact (Enger 2013; Trudgill 2011). By mapping the stages of this change, I will show how spatial evidence can be used to disambiguate these hypotheses.

Secondly, I look at the loss of the Norwegian genitive. Here, as in English, a m.gen.sg. *-s* ending was reanalysed and remains in the modern languages with changed distribution/function: the question is whether this syntactic change caused or was caused by morphological levelling and loss of other gen. endings (cf. Norde 1997; Allen 2008). I will demonstrate how—at least in the case of Norwegian—an in-depth understanding of the geography of these changes offers us a clear answer.

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# Areal variation in Middle High German: Methodological and quantitative aspects

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Using the *Corpus der* altdeutschen *Originalurkunden* (CAO), a large, electronically available corpus of Middle High German charters (Wilhelm et al. 1932–2004), we demonstrate that this text genre offers nuanced information on areal variation in this era. We discuss and evaluate two methods for retrieving such information: (1) Regular expressions (constructed from spelling variants noted in the *Wörterbuch der mittelhochdeutschen Urkundensprache* (WMU) (Kirschstein et al. 1994–2010) and (2) queries based on semi-automated annotations created with the *RNNTagger* (Schmid 2019).

Patterns of areal variation are indispensable for gaining a deeper understanding of finely-scaled grammatical variation or the diffusion of linguistic innovations, in particular the layering nature of grammaticalization processes (Becker and Schallert 2021). We focus on "contraction forms", i.e. cases of root shortening that occur with several verbs in this language period, e.g. *lâzen/lân* 'let', *haben/hân* 'have', etc. and are assumed to show a clear areal profile ( Klein et al. 2018: 948–949). This is confirmed by our data. Contractions are attested in modern dialects of German as well, enabling us to compare and relate our findings to data from these varieties.

Since short(ened) forms cannot be solely explained by phonological deletion processes but are also sensitive to grammatical factors (Nübling 2000), we take a closer look at the paradigmatic positions they occur in. In the case of *haben/hân*, we investigate whether contraction is sensitive to the functional split between uses as a full verb ('possess') and as an auxiliary.

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# The loss of the bipartite negation marker in Middle High German

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In our talk, we offer a phonologically-based explanation for the loss of the Middle High German (MHG) bipartite negation marker (1). Partly based on former Old High German (OHG) preverbal and phonologically weak *ni*, it is observed to be rather stable in Western Central German (WCG, Schüler 2017) while being replaced by single *niht* (< OHG *niowiht* 'nothing') much earlier in Upper German (Jäger 2008).

(1)  daz  ne  wart dem armen niht  uirgeben.        (M028-N1 0a, 53)
     *that*  NEG *was  the  poor*  NEG *forgiven*
     'The poor man was not forgiven.'                    (Vorauer Balaam)

For our study, we draw on the "Corpus der altdeutschen Originalurkunden bis zum Jahr 1300" (Newald et al. 1932–2004) and the "Referenzkorpus Mittelhochdeutsch" (Petran et al. 2016). In addition to an overall frequency analysis documenting the diachronic and diatopic variation (Hrbek 2021), we present an in-depth analysis which investigates the allegedly syntactic variation factors of verb type and verb position (Behaghel 1918).

We argue that the MHG writings of the preverbal marker *ne/en* represent the unstressed syllable vowels' weakening entailing their (partial) loss. This implies the two claims that at least in WCG, 1st, it was enclitic once deletion of Schwa set in and 2nd that resulting single [n] could no longer be prosodified for phonotactic reasons. The insertion of a schwa-like epenthesis vowel is hence to be regarded as a "last resort" strategy delaying but not preventing the loss of *en* with further proceeding of the /ə/-deletion.

**References:** Behaghel, O. (1918): Die Verneinung in der deutschen Sprache. In: *Wissenschaftliche Beihefte zur ZADSV* 38/40, 225–252. • Hrbek, D. (2021): *Untersuchungen zu Negationsstrukturen im Mittelhochdeutschen*. University of Munich [M.A.-Thesis]. • Jäger, A. (2008): *History of German Negation*. Benjamins. • Newald, R. et al. (eds) (1932–2004): *Corpus der altdeutschen Originalurkunden bis zum Jahr 1300*. Established by F. Wilhelm. 6 volumes. Schauenburg et al. • Petran, F. et al. (2016): ReM: A reference corpus of Middle High German – corpus compilation, annotation, and access. *JLCL* 31(2), 1–15. • Schüler, J. (2017): Negationsstrukturenin den Kölner Urkunden des 13. Jahrhunderts im Vergleich. In: *RhVjbll* 81, 1–23.

## Accusativism across varieties and time

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The term "accusativism" refers to a syncretism between nominative and accusative case in favor of the (historical) accusative form (Van Loon 1989; Marynissen 2005), e.g. fr. *le* 'the' (< lat. *illum* 'that$_{AKK}$') or nl. *Den Haag* (< 'the$_{AKK}$ Hague'). Within German dialects, accusativism is particularly characteristic of Historical Western German (Schmidt/Möller 2019), where it can be observed in some or even all masculine nominals, depending on subregion (e.g. *den$_{<AKK}$ Uwen brennt* 'the furnace burns'; *hen$_{<Akk}$ as krank* 'he's ill'.).

Although it is a fundamental morphosyntactic feature of the dialect area, as of today, little is known about the age, origin and function of the phenomenon. The question of age is especially important since some authors assume an influence of Romance dialects, in which comparable (yet not the exact same) processes took place.

Trying to reconstruct the history of accusativism in Historical Western German via different data sources this paper aims to discuss the following two questions:

- To what extent do inferences drawn from synchronic spatial distributions (e.g. wedge formations) lead to the same diachronic stages as suggested by finds in written sources? And what are the implications for other phenomena?

- How does the development fit with what is known about accusativism in Romance varieties? Is a direct correlation of developments plausible as a mere language contact scenario, or are there general principles that independently seem to favor accusativism in natural languages? Does this advance our overall understanding of case?

**References:** Marynissen, A. (2005): Die geographische Streuung der Familiennamentypen im niederländischen Sprachgebiet. In: *Niederdeutsches Wort* 45, 105–120. • Schmidt, J. E./Möller, R. (2019): Historisches Westdeutsch/Rheinisch. In: *Sprache und Raum. Ein internationales Handbuch der Sprachvariation*. 4, 515–550. • Van Loon, J. (1989): Een peiling naar het ontstaan van het Zuidnederlandse accusativisme. In: *Tijdschrift voor Nederlandse Taal- en Letterkunde* 105, 209–223.

# A corpus-based analysis of adnominal genitive constructions in varieties of Post-Classical and Byzantine Greek

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The research on varieties of later Greek has gained ground, after due attention has been paid to the fact that "the situational characteristics of our Post-Classical textual witnesses … [make] Post-Classical Greek more suitable for diachronic (register-based) research" (Bentein 2013: 35).

This paper deals with the alternations involving: a) syntactic "head" of a complex NP following vs. preceding its adjunct/ complement (adnominal genitive NP), e.g., eiselthóntes *eís tó tês theâs ádyton* vs. eís *tó ádyton tês theâs* eiselthôn 'having entered *the sanctuary of the goddess'* (Bentein 2021: 389) and b) attributive genitive constructions (syntactic implementation) vs. nominal compounds (morphological solution), e.g. *gynaikádelphon*, lit. 'wife-brother' (compound) vs. *adelphón tês gynaikós* 'brother of the wife' (nominal syntagma). We explore whether these variants reflect syntactical/morphological distinctions of regional varieties and we examine their diachronic development and diffusion. The corpus employed draws from both higher- and lower-register literary and non-literary texts of the same period in varieties of Post-classical and Byzantine Greek. We exploit the differences between "user-centered" and "observer-centered" sources (cf. Bentein 2021) with special emphasis on the Byzantine *metaphrasis*. *Metaphrasis* is a special literary genre, which paraphrases older texts in a manner as literal as possible by employing alternative expressions from the colloquial style to the high register and vice versa. The biographies of the Byzantine hagiographer *Symeon Metaphrastes*, (10th c. CE) are compared with older versions of the vitae, e.g. by the hagiographer *Kyrillos of Skythopolis* (6th c. CE, Palestine).

**References:** Bentein, K. (2013): Register and the diachrony of Post-classical and Early Byzantine Greek. *Revue Belge de Philologie et d'Histoire* 91. 5–44. • Bentein, K. (2021): The distinctiveness of syntax for varieties of Post-classical and Byzantine Greek: Linguistic upgrading from the 3rd c. BCE to the 10th c. CE. In: K. Bentein, M. Janse (eds.): *Varieties of Post-classical and Byzantine Greek*, Berlin-Boston: de Gruyter, 381-414.

# Translation practice as an indicator of syntactic conventions?
## On the imitation of orality in Middle Low German 15th and 16th ct. 'folk books'

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As translation literature, the Middle Low German 'folk books' of the 15th and 16th centuries have so far received relatively little attention within the Middle Low German philological research tradition. However, it is precisely the well-known relationship of dependency on the Early New High German originals that provides a special opportunity to compare these closely related historical varieties.

My dissertation project analyses a specially compiled source corpus, focussing on the literary prose syntax of dialogue passages. My main question is: Can the reconstruction of translation practice serve as an indicator of specifically Middle Low German syntactic conventions in the imitation of direct speech in literature?

The focus on simulated orality, starting from the syntactic structures determined by the method of differential evidence (Fleischer 2006), includes interface phenomena between grammar and pragmatics.

In the workshop, I would like to present case studies of selected syntactic differences as in the examples below and discuss their implications regarding historical dialogue syntax and translation practice.

Cliticisation and syntactic position of 2nd singular pronouns:
*das du meiner lere wilt volgen* (M[H] 7v,37)   *vn̄ wultu miner lere volgen* (M[N] 6v,16)
that you my-DAT.SG.F lesson want\PRS.2SG follow   and want\PRS.2SG=you my-DAT.SG.F lesson follow

Positioning of nominal address forms in prefield:
*ir zwinge̅ mich lieben frund* (G[H] 2r,06)   *Leuen vrunde gy dwingen my* (G[N] 2r,06)
2PL.NOM force-PRS.2PL me dear friends   dear friends   2.PL.NOM force-PRS.2PL me

**References:** Agnetta, M. (2021): Zur Translation als Performance mit Texten. In: *Textperformances und Kulturtransfer*. St. Ingbert: Röhrig, 9-32. • Bax, M. (1983): Die lebendige Dimension toter Sprachen. Zur pragmatischen Analyse von Sprachgebrauch in historischen Kontexten. In: *ZfgL* 11 (1), 1-21. • Fleischer, J. (2006): Zur Methodologie ahd. Syntaxforschung. In: *PBB* 128 (1), 25-69. • Koch, P. & W. Oesterreicher (1985): Sprache der Nähe – Sprache der Distanz. In: *Rom. Jahrb*. 36, 15-43.

# The scope for variation in syntax

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In dialect atlases, but also comparative reconstruction, phonology and the lexicon have always provided most of the items for analysis, unlike morphology and syntax. Compared to phonology, syntax is not free of "meaning" because driven by human cognition, and provides much less scope for variation in terms of number of building blocks. Competing variants are also much more difficult to identify in syntax. With comparative historical syntax, we are really in the business of doing typology. The feature database WALS (the World Atlas of Language Structures) presents almost the obverse of the normal coin of historical dialectology: hardly any of the WALS features are from phonology; almost all of them are syntactic or morphosyntactic features.

Fundamental differences between phonology and morphsyntax are also evident in the extent to which new frameworks are rolled out in both fields. It is not the case that syntacticians and phonologists don't want to be on the same page - the constraint-based approach of Optimality Theory was transferred from phonology to syntax, and the Principles and Parameters approach was transferred from syntax to phonology. But in neither case has the fit been optimal. The situation with respect to accounting for change is similar: the differences between the levels with respect to variation and "meaning" make it unlikely that change at these levels will follow the same mechanisms. We do not appear to have the same socially-driven mechanisms at the level of syntax as at the level of phonology. It is also interesting that accounts of language change that use analogies from evolution biology target syntax, not phonology – although evolutionary links between phonology and syntactic structure have been made (e.g. Carstairs-McCarthy 1999, 2016).

**References:** Carstairs-McCarthy, A. 1999. *The Origins of Complex Language: An Inquiry into the Evolutionary Beginnings of Sentences, Syllables, and Truth*. Oxford: OUP. • Carstairs-McCarthy, A. 2016. What can linguistic typology contribute to research on language evolution? *Linguistic Typology* 20:3, 569-578.

# DIPI: Dependency parsing for Ashokan Prakrit historical dialectology

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We present *DIPI* (*Digitizing Imperial Prakrit Inscriptions*), a Universal Dependencies (UD; Nivre et al., 2017) treebank for the Ashokan Prakrit dialect continuum. Represented by rock and pillar edicts commissioned by Mauryan emperor Ashoka in the 3rd century BCE, Ashokan Prakrit constitutes the earliest-attested variety of Middle Indo-Aryan (MIA). Intended to be understandable to the laity of surrounding regions, the language of the various, geographically-spread inscriptions provide a revealing snapshot of Indo-Aryan internal diversity during the early MIA stage. The *DIPI* treebank consists of a dependency-parsed, parallel corpus of six Ashokan Prakrit dialects (Girnar, Shahbazgarhi, Mansehra, Kalsi, Jaugada, and Dhauli), including annotations for syntactic dependency relations and morphology supplemented with etymological details (Sanskrit etyma) to facilitate comparative study. Indeed, tabulation of phonological and morphological isoglosses supports three broad dialect zones (western, northwestern, and eastern) (Oberlies, 2003), though it is unclear to what extent these features persist in modern New Indo-Aryan subgroupings (von Hinüber, 1986; Bubenik, 1996; Stroński and Verbeke, 2020). We thus use our treebank to reevaluate issues in early MIA morphosyntax from a dialectological perspective, focusing on: (1) a revised ergative analysis of predicated *ta*-constructions, (2) the grammaticalization of *art$^h$ āya* as a benefactive postposition; along with future directions towards the analysis of (3) doubly-marked causatives and (4) innovative clitic syntax. Lastly, we discuss adaptation of DIPI to tasks in computational dialectology (algorithmic alignment, multilingual transfer parsing).

**References:** Bubeník, Vit (1986): *Structure and Development of Middle Indo-Aryan Dialects*. New Delhi: Motilal Banarsidass. • Nivre, Joakim, et al. (2017): *Universal Dependencies* 2.1. • Oberlies, Thomas (2003): Aśokan Prakrit and Pāli. In: Cardona, George and Jain, Dhanesh (eds.): *The Indo-Aryan Languages*. London New York: Routledge, 161–203. • Stroński, Krzysztof & Verbeke, Saartje (2020): Shaping modern Indo-Aryan isoglosses. *Poznan Studies in Contemporary Linguistics* 56(3), 529–552. • von Hinüber, Oskar (1986): *Das ältere Mittelindisch im Überblick*. Wien: Verlag der Österreichischen Akademie der Wissenschaften.

# Dialectal differences in the development of differential object marking in the diachrony of Catalan

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The aim of this talk is to offer an account of the emergence and development of DOM in the diachrony of Catalan, paying especial attention to the dialectal differences that emerge. We do so by means of a large corpus study based on the *Corpus Informatitzat del Català Antic* and comprising the period from the first written texts to the 16th century.

The existence of DOM is well established for several Romance languages and varieties, such as Spanish and Romanian, where its use extends to several types of DPs. For other languages in the Romance family, such as Catalan, DOM has often been considered absent, except for personal pronouns and a few more cases. In sum, if we look at the Catalan normative grammar (Institut d'Estudis Catalans 2016), we may conclude that DOM is a largely restricted phenomenon in Catalan. However, the truth is that DOM is widespread across most dialects with human DOs. One may think that this is the result of the Spanish influence. However, it may be the case that it is actually fruit of the internal evolution of Catalan. Very importantly, instances of DOM with human DOs are found in the earlier Catalan texts (13-14th c.), and increase very significantly from the 15th c. on, reaching to 50% of occurrences in some texts. Interestingly, geolectal differences can be observed at this point, with Valencian texts offering the highest number of occurrences. In this context, one must take into consideration the influence of Aragonese in Valencia (people from Aragon repopulated the area) as well as Spanish, whose penetration into the Catalan-speaking area would soon become really severe. Actually, from the 16th c. on, once the influence of Spanish reaches the highest levels, DOM also becomes much more frequent, and the dialectal constraints (Valencian vs. other varieties) seem to be blurred.

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# How parallel longitudinal studies of inflection reveal areal (dis)continuities in diachrony

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Morphological analogy within inflectional paradigms is understood as a process constrained and motivated by the structured interrelationships between inflected wordforms (Blevins 2016, Fertig 2016, Maiden 2018). Because analogy is inherently directional, rigorous investigation of the factors relevant to change can only proceed if models and targets for analogy are correctly distinguished. Where multiple analogical changes affect the same set of inflectional forms, comparative study of modern varieties usually allows identification of formatives introduced by analogy, but longitudinal study is required to recover the precise sequence of changes.

When applied to a cluster of related varieties, longitudinal study confers the additional benefit of elucidating historical diatopic (dis)continuities, as illustrated here for preterite inflection in Occitan (southern Gallo-Romance), a minority language showing considerable diatopic variation. Comparing modern and mediaeval preterite forms highlights several analogical innovations; examining textual attestations in historical documents (Esher 2021a, b, c) reveals that in all areas except one, these changes occur within the same window, and in consistent order. As well as allowing the source and progression of innovations to be accurately pinpointed, the substance and chronology of the changes distinguish two groups of speech varieties, each showing strong internal consistency as well as stability over several centuries.

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# Dialectological-diachronic grammar of conjunction in Archaic Indo-Iranian

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Indo-Iranian (IIr) is an Indo-European (IE) language family which at its earliest form is constituted by Avestan and Rigvedic Sanskrit (Kulikov 2017). Morphosyntactic evidence from expressions of conjunction suggests that the two languages, which are perhaps more accurately considered dialects of early IIr, reflect two distinct stages of morphosyntactic change. Early IE languages operated a double system of coordination, whereby there exist two types constructions. In one, the coordinator is non-clitic and thus occupies the medial (or first/1P) surface position, in another construction, the coordinator is enclitic and occupies the second (=final) surface position (2P).

The present paper presents evidence from archaic IIr to support the view that the two dialects of early IIr reflect two distinct morphosyntactic mechanisms of expressing conjunction, one being more archaic than the other. Both Avestan and Vedic expressed 1P conjunction with *uta* and the 2P conjunction with *ca* particles, albeit to different extents, demonstrating the degree to which the grammar dis/allows movement (which will be argued to be the explicans for the 1P/2P alternation). Subsequent developments within the dialects, leading to developments of classical Iranian and Indic languages, show two stabilised types of conjunction grammar. Using geolinguistic, statistical, and philological methods, this paper provides a dialectal analysis of IIr morphosyntax of conjunction, showing that Avestan represents a more retentive grammar. Aside from providing a detailed a morphosyntactic analysis, it will show that, in cases of relatively stable directional historical change, that historical dialects may be identified (and relatively dated) based on the parametric properties (in the sense of Roberts 2019) reflecting the diachronic precursors and successors.

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# Relic syntax and dialectal comparison:
## The adjectival article in early Germanic

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Pfaff (2019) shows that *(h)inn* in Old Icelandic, as in (1), is not a determiner (D) element, but rather an adjectival article, forming a constituent with the adjective to the exclusion of the noun, as represented in the tree in (2).

(1)   a.   **hinn** <u>mikli</u>   maður
           ART    *tall*.WK *man*
      b.   þessi **in** <u>fáu</u>   orð
           *these* ART *few*.WK *words*

(2)
```
              DP
           ___/\___
          /        \
        D⁰
              ___/\___
             /        \
            AP         NP
          __/\__
         /      \
       ART     weakP
        |        |
      hinn      A.WK
```

(3)   a.   his **þam** <u>ecan</u>      Fæder
           *his* DEM *eternal*-WK *father*
           (Old English)
      b.   fro   min **thie** <u>guodo</u>
           *lord my* DEM *good*-WK
           (Old Saxon)
      c.   Men **ða** <u>leofestan</u>
           *men* DEM *dearest*-WK
           (Old English)
      d.   uuiroh **daz** <u>rota</u>
           *incense* DEM *red*-WK
           (Old High German)
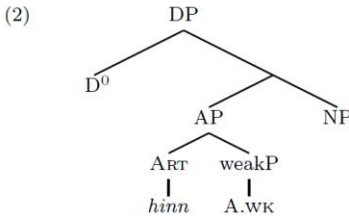
In this paper we argue that an adjectival article can be found in early West Germanic (WGmc) too, with a different formal expression, building on Heinrichs (1954) and Allen (2006). Examples are given in (3). When (i) a possessive precedes a 'demonstrative' (e.g. (3)a-b), (ii) 'demonstratives' and adjectives cooccur postnominally (e.g. (3)b-d), or (iii) vocatives contain 'demonstratives' (e.g. (3)b-c), the 'demonstrative' must be distal and immediately precede a weak adjective. The texts in which this adjectival article is found tend to be earlier and are from areas that are not geographically contiguous (e.g. Old English and Alemannic). This suggests that the adjectival article in WGmc is a RELIC FEATURE in the sense of Chambers & Trudgill (1998: 94-95).

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# "De-bound" morphemes in the process of creolization: the case of Palenquero Creole

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In the configuration of Palenquero Creole, some grammatical morphemes from the contributing languages underwent degrammaticalization, i.e. they were detached from their nominal or verbal bases and became part of the new Creole morphology. For example, the imperfect suffix *–ba* (from Spanish IMPF *-ba* of verb class 1, as in *cantaba* 'I sang') does not need to be directly attached to the verbal base:

(1)  ele    kandá    lo  nu-**ba**
     3P    sing     it   NEG-IMPF
     'he didn't sing it' (= Sp. él no lo canta-ba)

In addition, 'de-bound *-ba*' often fulfills new discursive and/or socioindexical functions (Lipski 2013). Another example is the noun class 6 prefix of Kikongo (*ma-*). This has become a sort of plural marker (2a), whose syntactic behaviour resembles a Romance plural article, including its use with null nominal heads (2b). Besides being the plural prefix of several nouns, *ma-* also marked mass nouns in Kikongo, but the latter meaning disappeared during creolization:

(2)  a. **ma**  planda          b. **ma**  I    tá    akí
        PL    banana              PL   REL  be   here
        'bananas' (= Kik. ma-        'those who are here' (= Sp.
        nkondo // Sp. plátano-s)       los que están aquí)

Interestingly, Palenquero 'chose' certain allomorphs (while discarding others) from both Spanish and Kikongo: there is, therefore, no rest of Spanish *–ía* (the imperfect suffix of the verb classes 2 and 3), nor any rest of the other nominal prefixes that convey plurality in Kikongo. For my analysis, I rely on a corpus of semi-spontaneous interviews that I conducted in San Basilio de Palenque. As could not be otherwise, the phenomena analyzed here will be approached from the point of view of the ongoing debate on "dialectalization vs. creolization" (Lang 2010).

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# On the partial overlap of morphosyntactic isoglosses: Numeral classifiers in Yucatec Maya

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AIM: The fact that isoglosses only partially overlap is established in lexicological research and is a substantial part of our understanding of the diffusion of lexical variants in space. The partial overlap between interrelated morphosyntactic properties allows for repercussions about the grammatical changes at issue in showing whether particular changes depend on each other.

BASIC FACTS: Numeral classifiers in Yucatec Maya are selected by numerals, (1a). Contemporary developments: (a) the classifier for inanimates is often used with any type of noun, which indicates a process towards the desemanticization of this classifier, (1b); (b) mensurative classifiers are often used with the generalized classifier, as in (1c), indicating a process towards reanalysis of the mensurative classifiers as nouns. The end point of both developments is a system without numeral classifiers.

(1) a. *jun-ts'íit kib*      'one-CL.LONG candle'
    b. *jun-p'éel kib*      'one-CL.THING candle'
    c. *jun-p'éel wóol sakam*   'one-CL.THING ball dough'

METHOD: We present data from 157 speakers (collected in 80 different locations) that were elicited by translating 20 expressions of different classes from Spanish to Yucatec Maya.

RESULTS: The developments at issue overlap only partially. Although bilingualism may plausibly play a role in the reanalysis of classifiers (since this system is not available in Spanish), the related phenomena are diffused in space independently of each other. These results support previous findings that the diffusion of related changes in space are only weakly correlated.

# Development of plural marking of former neutral a-stems in German dialects

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This paper discusses the development of the former neutral a-stems' plural marking in German dialects since the Middle High German (MHG). As we know, within the class of neutral a-stems, the singular and plural forms coincide in their nominative and accusative forms in Old High German. These alignments lead to the reorganization of the nominal inflection system which in turn results in an increased marking of the category number: The inflection class of neutral a-stems is thereby reduced as all members gradually transfer into other inflection classes (Dammel/ Gillmann 2014: S. 200f.). The paper focusses on the different strategies of number profiling of this former inflection class.

The present study is based on data from the two historical corpora *Reference Corpus of Middle High German* (REM) and *Bonn Corpus of Early New High German* (FnhdC). In a first step, the most frequent strong neuters' marking of plural in MHG was analyzed. This selection already shows two possible strategies: a) plural marking through suffixation and b) plural marking through omission of the final -e in nominative singular. The further evaluation focusses on group a).

As both Early New High German (ENHG) and MHG refer to a multitude of dialects, the marking of plural develops differently regionally and chronologically. These developments will be illustrated further in the following study.

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# AG 2

## Commitments in grammar and discourse

Anton Benz, Manfred Krifka & Marvin Schmitt

## Commitment, saying, and deniability

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In recent years, there has been an explosion of interest in the responsibilities arising from the performance of illocutionary acts. Much of the contemporary literature on communicative commitments focuses on commitments that are acquired directly – for instance, by explicitly asserting that something is the case (e.g. MacFarlane 2003; Tanesini 2019). However, commit-ments can also be acquired indirectly– for instance, by implying (or presupposing) that something is the case (Mazzarella et al. 2018). The distinction between directly and indirectly acquired commitments is often thought to be linguistically significant. For instance, it has been suggested that indirectly acquired commitments cannot be truly assertoric (Stainton 2016, 201), and do not qualify as lying if insincere (Viebahn 2021)

This talk will explore the distinction between directly and indirectly acquired commitments in better in detail. I will consider whether the distinction is reducible to other familiar oppositions: the opposition between what is said and what is implicated, between deniable and undeniable communicative intentions, and between additive and non-additive implicatures. After finding each of these views wanting, I will propose an alternative model, which acknowledges that different parameters contribute to determining the strength and quality of the commitments undertaken by communicators.

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# Is lying morally different from misleading? An empirical investigation

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Consider the following case:

> Dennis is going to Paul's party tonight. He has a long day of work ahead of him before that, but he is very excited and can't wait to get there. Dennis' annoying friend Rebecca comes up to him and starts talking about the party. Dennis is fairly sure that Rebecca won't go unless she thinks he's going, too. Rebecca: Are you going to Paul's party?
>
> (1) Dennis: No, I'm not going to Paul's party.
>
> (2) Dennis: I have to work.
>
> Rebecca comes to believe that Dennis is not going to Paul's party.

In (1), Dennis tricks Rebecca into a false belief by explicitly expressing a falsehood. By contrast, in (2) Dennis achieves his aim in a less direct way, namely by means of a conversational implicature. Whereas there is no doubt that speakers are committed to explicitly expressed falsehoods, it is sometimes claimed that speakers are not – or less – committed to the implicated contents. This difference in commitment has been used to argue that the former are cases of lying, while the latter are cases of merely misleading (Stokke, 2018). Here, we explore whether the postulated difference in commitment translates to a different *moral* evaluation. We approach this question empirically, by presenting 761 participants with ten matched cases of lying versus misleading in separate and joint evaluation designs. By and large, we find that cases of lying and misleading are judged to be morally on a par, to have roughly the same consequences for future trust, and to elicit roughly the same inferences about speakers' moral character. We discuss the relevance of our findings for the philosophical debate about lying and misleading, and outline avenues for further empirical research.

**References:** Stokke, A. (2018): *Lying and Insincerity*. Oxford University Press.

# Deconstructing Commitment: Lessons from the study of rising declaratives

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Adding rises to declaratives results in a modified commitment to the truth of a proposition (e.g., Gunlogson 2001). Or so the story goes. A closer look at rising declaratives reveals that i) modifying commitment can also root in an uncertainty about the relevance of an utterance; ii) adding a rise to a declarative can also leave the speaker's commitment unaffected; iii) the type of commitment is reflected in the shape of the final part of the contour. The data in (1) and (2) exemplify these observations:

(1) Robin is sitting… in a windowless computer room when another person enters. The newcomer is wearing a wet raincoat and boots. Robin says: It's raining[L*H-H%]                (Gunlogson 2001)

(2) Mark Liberman … approaches a receptionist with a view to finding out if he is in the right place for his appointment and says: My name is Mark Liberman [H*H-H%]        (Pierrehumbert & Hirschberg 1990)

Steep rises, as in (1), express uncertainty about truth, shallow rises, as in (2), express uncertainty about relevance. This can be explained if our accounts of commitment allow for variation in the *object* thereof. In (1), this object is the proposition; in (2), it is the speech act. Declaratives with echo rises or incredulity contours even leave the commitment unaffected. The present paper develops a new account of commitment in rising declaratives. Rises simply call to respond. The steepness of the rise encodes the object of commitment, its duration, any modification. The lessons from rising declaratives, then, are that commitment comes in different forms, and that rises are only indirectly responsible for that.

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# Can a commitment be ironic?

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The commitment-based view of human communication has recently come into the limelight as an alternative to the Gricean intention-based view. Geurts (2019), inter alia, holds that the Gricean account can be "embedded" into the commitment-based cousin by redefining both beliefs and intentions as special cases of (social) commitments, namely *private commitments*. The redefinition of these psychological notions in terms of social concepts is based on their *normative* character; those who believe/intend that *p* are supposed to act on *p*. This conception of belief and intention, however, rests on the failure to acknowledge that a private commitment, be it telic or atelic, is no more a commitment than suicide is a murder. Moreover, even if one concedes that the private commitment is a full-blooded one, the commitment-based analysis of conversational implicature fails to account for irony. For irony, as Currie (2006) puts it, essentially involves pretence. Thus, if you want to ironically insinuate *q* by saying *p*, you can neither commit yourself to act on *p*, nor commit yourself to not committing yourself to act on *p*.

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# Commitments *de lingua* in transparent free relatives

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The choice of term used to describe an object or event often conveys an implicit point of view, a *de lingua* commitment that the use of the term is appropriate, which presumptively defaults to speaker commitment or acceptance. Speakers may nonetheless manoeuvre this default by introducing a term periphrastically. In (1), the pivot term *beergarita* is enveloped in a *Transparent Free Relative* (TFR) (Wilder, 1999), raising the issue of whether the speaker considers the pivot to be appropriate in the context of utterance (Nakau 1971; Harris 2014).

(1) John made [TFR what
   a.  I          call
   b.  he         calls
   c.  mixologists call
   d.  –          is called
   a beergarita]
   *pivot*

I provide a formal pragmatic sketch of how TFRs direct updates to the common ground (CG) within Malamud & Stephenson's (2014) version of the Table framework (Farkas & Bruce, 2010). Whereas a speaker source, e.g., *I* in (1a) or *we*, results in a proposal to update the CG much as a typical assertion, a non-speaker source (1b–c) invites subtle pragmatic inferences that hinge on whether the source has sufficient evidential warrant. If so, the proposal updates the CG as a dependent commitment (Gunlogson, 2018). If not, the commitment is registered as specific to an individual, blocking an update of the CG with the term in question. I report experimental results suggesting that comprehenders reason about *de lingua* commitments in TFRs by engaging in general pragmatic inferencing regarding the presumed *quality* of the source, e.g., an arbitrary attitude holder *he* (1b) vs. an authority *mixologists* (1c) or generic, unspecified source (1d).

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# Commitment attribution and root-clause complementizers

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This paper focuses on a usage of the complementizer *que* in Catalan, in which the discourse contribution of the particle is linked to commitment marking. My account is formulated in a discourse framework à la Malamud & Stephenson (2015) based on Farkas & Bruce (2010). Speech participants keep track of the discourse commitments for each the interlocutor. The discourse contribution I propose for *que* is that it places *p* in the set of discourse commitments of the hearer, while the speaker herself does not publicly commit to *p* (cf. Gunlogson 2008, Poschmann 2008 on commitment-shift). This explains why the particle is infelicitous in (1). The hearer (=speaker A) retracted her commitment to *p*.

(1) [Context: What is the false belief students have at the beginning of
    your studies?]
    B:   (Que) segurament (#**que**) acabaran    la    tesi    a    temps.
         that    sure              QUE    finish.FUT.3PL the    thesis  on time
    B':  (That) they will surely (#que) finish their thesis on time.'

(2) Pare: És dolent demanar a  un fill   que llegeixi    un llibre?
    father is bad    demand  of a  son that read.SUBJ a   book
    Mare:   **Que** té   nou anys.
    mother QUE has  nine years
    'Father: Is it a bad thing to ask your son to read a book? Mother: He's
    only nine!' (corpus data)

The effect in (2) arises because the content of the proposition introduced by *que* is something that the hearer (=the father) should obviously be committed to. Therefore pointing out that *p* is part of the hearer's discourse commitments results in an emphatic effect and implies that the book was not age appropriate.

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# Farewell to V2 declaratives?

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Despite obvious initial plausibility, analyses of the distribution of (Germanic) V2 declaratives (V2Ds) in terms of standard notions of assertion run up against serious obstacles (Antomo 2016). In an attempt at clarifying the situation, Gärtner and Michaelis (2010; 2020) [GM] promote the idea of benchmark testing against (natural language counterparts of) the familiar propositional connectives ($\neg$, $\wedge$. $\vee$, $\rightarrow$). GM emphasize that simplistic commitment-based approaches fail, due to V2Ds being equally fine under conjunction (✓ V2D∧V2D) and disjunction (✓ V2D∨V2D). Also, accounts based on interpreting V2D as simply triggering propositional common ground intersection are unable to capture the ban on V2D under negation (✘ ¬V2D) and as conditional protasis (✘ V2D→__). To deal with the core facts, GM suggest that CG-intersection be constrained by *Progressive Update* [PU].

In this presentation we scrutinize the GM agenda from three new perspectives. First, we show that "preference semantics" [PS] (Starr 2020) would be in a position to derive but not to explain the above distribution. Thus, the syntax of the "dynamic logic of mood" that formalizes PS disallows force bearing structures like V2D from combining with negation and occurring as conditional protases, while being fine under conjunction and disjunction. At the same time, the semantic counterpart of V2D in PS, i.e., "declarative semantics," is defined in all four environments. Second, we address an insufficiency of PU, arising where conditional protasis and apodosis directly negate each other. Here, counterexamples to (✘ V2D→__) are incorrectly predicted. Repairs appealing to necessary dynamic update failure or (a suitable variant of) connexive logic (Wansing 2020) will be shown to be problematic in more or less interesting ways. Third, we'll evaluate our data set from the perspective of Jacobs (2018; 2020), who suggests that V2Ds "don't have sentence mood" and promotes an account in terms of (constructionist) "local licensing."

## Commitments to exclamations

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This communication offers an approach to exclamations based on commitments. In an exclamation like *How tall Mary is!*, the descriptive content corresponds to the proposition "Mary is tall beyond my expectations", whereas the expressive content would correspond to the speaker's emotive attitude toward this state of affairs. Hence, to account for exclamations, we need two different commitments by the speaker x: a commitment to the psychological state s (x⊢s), and another one to the proposition p (x⊢p), denoting the unexpected state of affairs [1]. Taken separately, these two commitments could describe assertions, but as [2] suggests, the main point of exclamations is expressing that s is caused by some unexpected p. Hence, they are neither pure expressives like *Wow!*, which lack propositional content, nor assertions like *This wine is extremely expensive*, which lack expressive content.

At this point, the hearer y can act on x's commitments, which offers us a complex set of interactions:

(1)  A:  How expensive this wine is!
(2)  B:  Yeah, I can't believe it!          [(y⊢s) & (y⊢p)] full agreement
(3)  B:  How can you say that? It's a bargain!     [(y⊢s)] agreement on s
(4)  B:  Come on: you are not surprised at all!    [(y⊢p)] agreement on p

The possibility of (4) has not been admitted generally [3], but the commitment analysis opens new lines for revising this claim, in accordance with growing experimental work on the different levels of meaning in exclamatives.

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# Bias and modality in conditionals

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The concept of bias is familiar to linguists in the literature on questions. Following Giannakidou & Mari (2021), we assume "nonveridical equilibrium" (implying $p/\neg p$ as equal possibilities) as the default for epistemic modals, questions and conditionals, which can be manipulated to produce bias (i.e., reduced or higher *speaker commitment*). Focusing on three kinds of German modal elements (Reis & Wöllstein 2010; Sode & Sugawara 2019; Liu 2021), we conducted two experiments using speaker commitment ratings, Exp.1 on *sollte/wirklich* in *ob*-questions and *wenn*-conditionals, and Exp.2 on *sollte/wirklich* in *wenn*-, *falls*- or V1-conditionals. Our findings (see Figure 1) are that both *ob*-questions and *falls*-conditionals express reduced speaker commitment about the modified (antecedent) proposition in comparison to *wenn*-conditionals, which did not differ from V1-conditionals. In addition, *sollte/wirklich* in the antecedent of conditionals both create negative bias about the antecedent proposition. Our studies are among the first that deal with bias in conditionals (in comparison to questions) and contribute to furthering our understanding of bias.
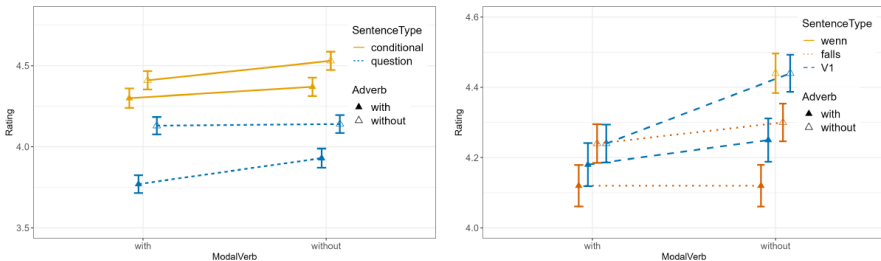


Figure 1: Rating results (1-7: absolutely no-yes) in Exp.1/Exp.2 (left/right)

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# Performative conditionals

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This paper documents a novel pattern in the expression of conditional statements about future in Farsi. When both p and ¬p are equally plausible future events, the antecedent of conditional statements about future can either be marked with subjunctive or perfective. Conditionals whose antecedent is marked with perfective give rise to "performativity" effects which can be tracked from strictly speaker-oriented interpretations of modals in the consequent (i.e. subjective interpretations of epistemic modals and performative readings of deontic modals), and the resistance of perfective conditionals to denials in dialogues.

I argue that a more fine-grained notion of the information content in terms of *situations* can help us derive the semantic and pragmatic differences between the two kinds of conditionals from a unified semantics of conditionals. I propose in subjunctive conditionals, quantification is over situations in which the proposition in the antecedent is true, whereas in perfective conditionals, quantification is over situations in which the proposition in the antecedent is *exemplified* (Kratzer, 2007). In the pragmatic level, the two conditionals are mapped to two different ways of updating the context with the antecedent proposition (Murray, 2014; AnderBois et al. 2015).

Following Mari & Portner(2018), I take subjunctive to convey that the antecedent proposition is at issue in the conversation. Like other At-issue content, the antecedent of a subjunctive conditional (p) is a *proposal* to update the context set with p-worlds. I propose that perfective antecedents convey Non-at-issue content, and thus directly update the context set with the antecedent proposition.

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# Mental Attitude Verbs between Semi-Performatives and Constatives. A View from Polish

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Cross-linguistically, mental attitude verbs show neg-raising (NR) properties (cf. Horn 2021 for a recent overview). Under the NR-reading, these predicates behave in a way similar to performatives: they do not take the progressive (in English) and exhibit a marked preference for the 1st person present. Whereas in Romance languages such as French or Spanish, negated NR predicates select subjunctives, there are two options in Polish. When negated, Polish NR verbs can select indicative complement clauses introduced by the complementizer *że* 'that' and subjunctive complement clauses introduced by *żeby* 'so that'. In contrast to sentences with *że*, where affirmative contexts are possible, sentences with *żeby* obligatorily contain a negation in the matrix clause. An NR reading is available in both types of structures, which is evidenced by the licensing of NPIs. However, our corpus studies on selected NR predicates in Polish show that their usage with *że*-clauses differs from their usage with *żeby*-clauses: the 1st person singular present form is strongly under-represented for *że*-clauses and strongly over-represented for *żeby*-clauses, which support the performativity hypothesis only for their usage with subjunctive *żeby*-clauses. Based on these findings and adopting the approach of Krifka (to appear), we propose to model Polish NR structures in two different ways: NR predicates with subjunctive *żeby*-clauses originate as heads of the Commitment Phrase, whereas NR predicates with indicative *że*-clauses originate in the Tense Phrase, where tense values are instantiated.

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# Acquiring expressions of commitment in English

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English-acquiring children's representation of commitment in syntax reveals the step-wise development of the common ground, as in (1):

(1) Own Point of View (POV) > General POV > Awareness of shared interlocutor POV > Awareness of disjoint own/interlocutor POVs >Commitment to shared POV > Commitment to non-shared POV

This path is revealed through the child's elaboration of the left-periphery of their utterances. English-acquiring children produce string-similar constructions containing 'high' negation in the order in (2):

(2) Negative tag question (possibility of shared POV) >'High' negation biased question (possibility of disjoint POV) >Negative polar exclamative (speaker commitment to shared POV) >'Persuasion' question (speaker commitment to disjoint POV)

The acquisition of increasingly complex speech acts is contingent on intricate mapping between, we argue, speech act operators and a more refined view of the common ground, as in (1), than has hitherto been proposed. We use naturalistic English child negative polar exclamatives (NegExcls, 3), analysed as in (4), to claim that (4) captures the acquisition data and path better than construction-specific operators can predict (e.g. Taniguchi 2017) and that NegExcls are an explicit mapping of commitment to one's own POV onto linguistic structure.

(3) Isn't it sweet.                                    Anne (Manchester corpus), 2;5

(4) [$_{\text{SpeechActP}}$ ASSERT][$_{\text{PerspectiveP}}$ is+n't][$_{\text{CP}}$ t$_{\text{is}}$][$_{\text{TP}}$ [$_{\text{DP}}$ it][$_{\text{T}}$ t$_{\text{is}}$][$_{\text{AP}}$ sweet]]]]]

The development of NegExcls relative to biased Qs and 'persuasion' Qs suggests that a small set of speech act operators, spelled out in English as intonation (Heim 2019), combine in different ways to tease apart string-identical constructions in meaning and acquisition.

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## *Is that a question?* Learning to identify questions in early speech to infants

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Infants seem to respond to parents' questions from as early as 18 months old [1], but what goes into recognizing a question in parents' speech? We hypothesize that besides information from clause types (questions are usually expressed with interrogative syntax, [2]), there are also pragmatic cues to help children identify questions available in the input. In this project, we examined questions in infant-directed speech. We found that questions' expectation for a response is evidenced by parents making longer pauses after questions than assertions (Fig 1), and looking at the child longer after a question than after an assertion (Fig 2).
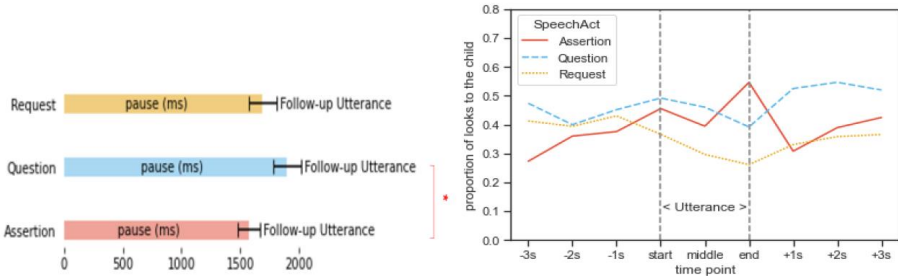


Fig 1. Length of pauses after an utterance    Fig 2. Proportion of looks to the child

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# Hearsay and (non-)commitment

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Utterances with evidential expressions have been treated as special assertions(e.g., weak, modalized, or hedged) except for utterances with hearsay evidentials. Across languages (AnderBois 2014), hearsay evidentials often do not require the speaker to commit to $\phi$, which is diagnosed by disavowals '$\phi$ is not the case' or 'I don't believe $\phi$'. (1) illustrates the pattern for Georgian (data are my own). Because assertion requires belief/ commitment, utterances with hearsay evidentials have been argued to be speech acts of presentation whose goal is to raise a particular issue (Murray 2014, Faller 2019).

(1)  kalifornia-s  k'anonier-I  gauxdia      marihuan-is     gamoq'eneba
     CA-DAT        legal-NOM    make.IND.PST  marijuana-GEN   usage.NOM

     magram  asi   ar    aris
     But     this  NEG   is

     ≈ '**I hear** that California legalized marijuana, but that is not true.';
     $\phi$ = 'California legalized marijuana'

This paper provides a novel account of non-commitment with hearsay wherein such utterances are assertions whose at-issue contribution is the speaker's having hearsay evidence. This proposal is rooted in the idea that the evidential contribution has a variable at-issue status (Korotkova 2020). It is not-at-issue by default but can also become at-issue, which is what happens with disavowals. Case like (1) can therefore be treated as ordinary assertions, just like corresponding speech reports of the form *I hear that $\phi$*.

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# Evidential commitments of the Addressee: A corpus study

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This talk investigates whether an evidential utterance commits addressees to its evidential information. Some works (e.g. Murray 2010, Korotkova 2016, Koev 2017) propose that it does so obligatorily and this explains why evidentials cannot be challenged in discourse (it also entails that they are discourse-new information). Others (e.g. Izvorski 1997) suggest that evidentials are presuppositional: the addressee cannot challenge them because she has already committed to their contribution earlier.

Curiously, both camps draw on Bulgarian data. These studies are based on introspection or native speaker judgments of non-conversational sentences, but so far natural discourse has not been examined. To address this gap, I tracked the discourse conditions on the use of the reportative evidential in the corpus of Bulgarian conversations (http://bgspeech.net/). It emerges that most often, by the time the evidential marker is used, the addressee is already committed to its contribution, or accommodates when that information is new. This supports the presuppositional view.

Therefore, evidentials do not commit the addressee by design, but appear so as a by-product of being presuppositional. This predicts that they can be challenged just in those cases when they are new and need to be accommodated, but the addressee refuses to do so (*wait a minute* test). I provide novel data showing that this prediction is indeed borne out.

The findings inform the nature of evidentiality and more broadly, I conjecture that there are no natural language expressions that obligatorily commit the addresse.

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# Epistemic adverbials are truth-conditional

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There is a longstanding view that epistemic adverbials (EAs), like other epistemics, modulate the speaker's commitment to the qualified proposition (e.g. Lyons 1977; Palmer 1986). They have also often been treated as modulators of the illocutionary force of assertions (e.g. von Fintel 2003; Krifka, to appear; Truckenbrodt 2015). This contribution argues against these claims on two fronts. First, even though EAs lie on a continuum from weak to strong, this continuum concerns the probability that a proposition is true, not the speaker's commitment to a proposition. A speaker can communicate her commitment to P by asserting *Certainly*(P) but not by asserting *Probably*(P) or *Possibly*(P). Importantly, however, deriving the speaker's (non-)commitment to P from Adv(P) is an inferential task. Second, rather than modifying illocutionary force, EAs contribute to the truth-conditional content of an utterance just like their 'It is Adj. that P' predicative counterparts. However, while predicatives are negatable, adverbials are not. It is hypothesised that EAs are non-negatable because they are not specialised for expressing what's at-issue (Simons et al. 2010). Predicatives can be at-issue but they need not and when they are not, they cannot be negated either. The IS approach further captures divergent behaviour in conditionals and questions, and explains Nilsen's (2004) contrast.

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# Legal obligations and prohibitions: Is a commitment approach viable?

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In this paper, we examine whether a treatment of speech acts as defined by commitments they cause can be sustained in one domain for which it might seem tailor-made: that of legal provisions, as in (1)–(2):

(1) Everyone who… challenges or attempts by any means to provoke another person to fight a duel… is guilty of an indictable offence and liable to imprisonment…        (Criminal Code, s. 71 (repealed))

(2) a. The Advisory Committee shall transmit to the Secretary of  State a copy of every report…        (Fair Trading Act 1973, s. 14(5))

   b. No person shall manufacture… a pest control product that is not  registered under this Act…    (Pest Control Products Act, s. 6(1))

The problem for a commitment account is that as speech acts, typical provisions – e.g. (1) – do not commit anyone to do anything. The author (the legislature) does not commit itself to any course of action. Nor are the primary audience (those subject to the law) committed to do anything – not even obey the law.

The contrast between (1) and (2) suggests a reply for the commitment-theorist. Some legal provisions containing *shall* are directives. Typical cases, such as (2a), instruct officials, but others, such as (2b), impose general commitments. Perhaps, then, provisions like those in (1) are conventionally understood as though they contained legal *shall*.

The easy intertranslatability between the two types of provision and the fact that they apparently play similar roles might seem to support this view. However, this is a double-edged sword: provisions like (2b) can be rephrased without *shall*, as indeed they increasingly are in new legislation, suggesting that provisions need not have directive force and cannot be defined in terms of commitments they cause.

## AG 3

# Long distance dependencies and the structure of embedded clauses in African languages

Katharina Hartmann & Malte Zimmerman

# Long-distance dependencies and "complement" CPs in Bamileke Medumba

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In this talk, I argue that the "complement" status of CPs is only apparent in Bamileke Medumba, in fact complement CPs are disguised adjunct CPs in the language. They first merge in V complement position but are extraposed as vP adjuncts. This proposal is supported by a number of language-internal evidence, namely the absence of A'-agreement (see Schneider-Zioga 1995, Chen 2017, Keupdjio 2020) with matrix vP; the symmetry between apparent complement CPs and adjunct CPs with regard to obligatory resumption; the lack of wh-embedded interrogatives and subject CPs in the language; the fact that apparent complement CPs follow matrix VP adjuncts; unlike vP adjuncts (apparent complement CPs) and the fact that apparent complement CPs strand under VP gapping unlike objects DPs which surface in VP complement position.

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# Syntactic display and semantic functions of Mə́dʉ́mbá SVCs

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Ross & Lovestrand (2018) regard serial verb constructions (SVCs) as two or more juxtaposed verbs with no marker of dependency or linking element, expressing a single event in a single clause with shared-values for tense-aspect-modality and negation and shared arguments. The principal aim of this paper is to provide an in-depth descriptive analysis of Mə́dʉ́mbá serial verb constructions from a morpho-syntactic and semantic perspective. The article examines the structural characteristics of SVCs in the language and brings up a semantic typology of SVCs in Mə́dʉ́mbá. The paper also attempts a compositional semantic analysis of SVCs in the Mə́dʉ́mbá language.

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## Morpho-syntactic asymmetries in Awing wh-questions

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This talk will present different types of asymmetries involved in mono- and bi-clausal content-questions in Awing, a SVO Grassfields Bantu language: (1) *subject interpretation and resumption*, where there is a ban on subject resumption and the use of an exhaustive focus operator with mono-clausal wh-subjects but both properties are obligatory with the bi-clausal structure; (2) *argument adjunct asymmetry*: wh-arguments can be questioned via the mono- and bi-clausal strategies but adverbs are degraded in the bi-clausal structure; (3) exhibits *'anti-superiority effect'* via an acceptability rating study with auditory stimuli (Fominyam et al. in prog.) which shows that a wh-object is preferred to a wh-subject when the bi-clausal strategy is used and, (4) there is *coordinate structure asymmetry*: only the right conjunct can be questioned with the mono-clausal strategy and the bi-clausal strategy only allows questioning of the left conjunct. I will show that content questions (or ex-situ wh-words) are not derived by movement in Awing. Various movement and reconstruction effects also show that the anti-superiority effect is illusive. It would be argued that DP-coordination is a comitative structure of the form **A co-B,** where **co-B** is a PP complement of **A** (cf. Haspelmath 2007). The impossibility to question the right conjunct is analysed as a ban of PP stranding (cf. Abels 2012) and the ungrammaticality of the mono-clausal coordinate structure is seen as a reversal of a *'given>new order rule'* (cf. e.g., Kučerová 2007; Fanselow 2008).

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# Topic and focus in Tira

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Some languages have optional *wh*-movement except for subjects, which must be extracted when focused (e.g. Zerbian 2006). We derive these properties for Tira (Kordofanian) as a side effect of two distinct kinds of mixed A/A' movement in topic vs. focus clauses.

Tira clauses are characterized by a hybrid A/A'-initial position, whose occupant is case-marked nominative and controls subject agreement on the verb/auxiliary. Tira is also V2; when non-agents are in initial position, the agent occurs after the verb/auxiliary, though it retains case-marking.

(1)  Ngen        nge-non-o      ttuli        unere
     CL$\eta$.*dog*.NOM CL$\eta$-*watch*-PFV CL*ţ*.*lion*.NOM *yesterday*
     'The lion watched the dog yesterday.'

(2)  An  unere     ng-gar-o-ge                  ura          zqwe.
     FOC *yesterday* CL*g*-*break*-PFV-WH:*adv* CL*g*.*child*.NOM CL*ð*.*stick*-ACC
     'It's yesterday that the child broke the stick.'

In unmarked clauses such as (1), the initial position is a topic; which must be a DP. However focus clauses such as (2) do allow PP and AdvP to be in focus, triggering default class-g agreement on the verb.

We propose main clauses occur in two subtypes in Tira: topic and focus, corresponding to two C heads. Topic C bears a complex probe with a conjunctive satisfaction condition (Scott 2021), which satisfied by a goal bearing $\phi$ and [+topic]. Focus clauses only require a [+focus] feature on their goal, and agree as a byproduct of probing, which we formalize in Deal's (2021) interaction-satisfaction model of Agree. Optional wh-movement is derived as the choice between these two clause types; putative 'subjects' cannot be wh-words because wh-words cannot be topics. We also show that successive-cyclic movement in Tira provides evidence an embedded C head with properties distinct from either topic or focus in main clauses.

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# Addressee agreement in Bantu and speech act projections

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In this talk I connect plural addressee suffixes (PAS) in Bantu languages to work on allocutive agreement and the representation of discourse participants in syntax. Swahili's PAS is typical for Bantu in encoding the plurality of a 2nd person argument - whether an overt internal argument (1), the null argument of an imperative (2) or exhortative (3).

(1) Ni-li-wa-on-**eni**        wewe   na   Rajab.
    *1ssa-pst-2pl.om-see-eni you    and  Rajab*
    'I saw you and Rajab.'

(2) a.  Simama!                 b.  Simam-**eni**!
      *stand*                       *stand-eni*
      'Stand up!' *singular addressee '*   'Stand up!' *plural addressees*

(3) a.  Tw-end-e!             b.  Tw-end-e-**eni**!
      *1 pl-go-sbj*                 *1 pl-go-sbj-eni*
      'Let's (you and I) go!'     'Let's go!' *plural addressees*

(1)-(3) motivate a structural low AddresseeP: selected by v* in (1) and by the Jussive head of imperatives and exhortatives in (2)b, (3)b (Zanuttini et al. 2012). I follow Zanuttini et al. in positing that a pro subject of imperatives and exhortatives has unvalued phi-features; I diverge in attributing the valued features to Spkr and Addr heads. In its limitation to arguments *-eni* differs from better-known allocutive agr patterns, e.g., in Basque (cf. Oyharcabal, 1993) or Jingpo (cf. Zu, 2018). But Muriungi (2008) shows that Kiitharaka's cognate to *-eni* works for non-arguments. I propose a unified analysis of AddrPs: only their syntactic locations determine the domain from which the controller of agreement is drawn.

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# The function of complementizers and its consequences for clausal embedding the case of *ko* in Jula

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This talk asks: how does the function of complementizers impact the syntax and semantics of embedded clauses? We propose an answer to this question by looking at the say-complementizer *ko* in the West-African Mande language Jula, which introduces finite complement clauses. Our central claim is that *ko* behaves like a Relator (Den Dikken 2006). It relates or anchors a clause to a discourse context different from the actual discourse context. This function, which is a direct consequence of its verbal origin, ultimately echoes with the role of Force-head complementizers (Rizzi 1997). However, we argue that, as for the case of *ko*, the relevant discourse context forms part of the syntax of *ko*-clause constructions. It is a speech context (à la Schlenker 1999) represented by the FinP *kà a fɔ* in the specifier position of the projection headed by *ko*.

(1)
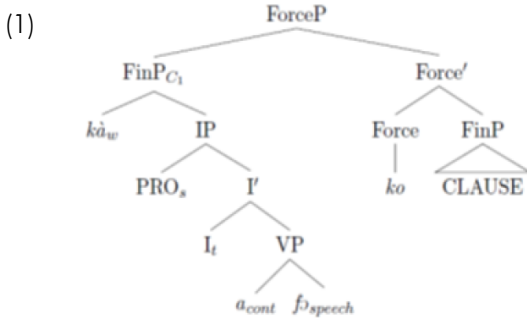


As we will discuss, (1) is responsible for many aspects concerning the syntax and semantics of complement *ko*-clauses, including the presence of logophoric effects.

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# Subject and non-subject wh-questions asymmetry in Àkúrɛ́

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There is a two way asymmetry between subject and non-subject wh-questions in Àkúrɛ́, an SVO Kwa language. The first is based on resumption. While the non-local subject wh-questions make use of resumption, local subject wh-questions and non-subject wh-questions do not. The second asymmetry is in the in-situ vs. ex-situ status of the wh-questions. While local subject wh-questions are realized in-situ, non-local subject and non-subject wh-questions are obligatorily ex-situ.

I assume that Erlewine's (2016) Spec-to-Spec Anti-locality could be a reason why the local subject wh-questions are in-situ. On the other hand, since non-local subject and non-subject wh-questions do not violate the spec-to-spec anti-locality, they are realized ex-situ. Ex-situ wh-questions can be realized either by base-generation or movement. I propose that in Àkúrɛ́, they are realized by movement to the left periphery of the clause. This proposal is supported by island tests such as adjunct island, complex noun phrase constraint, and wh-island tests. If movement out of these islands is prevented, then the strategy for ex-situ wh-questions is movement. I further argue that the resumptive asymmetry that is observed between local vs. non-local subject wh-questions on the one hand, and non-local subject vs. non-subject wh-questions on the other, arises as a result of the that-trace effect. To satisfy this effect, the embedded subject wh-question movement leaves a resumptive pronoun in its base position. Since local subject and non-subject wh-questions are immune to this effect, we do not see resumption. The proposed syntactic structure is based on Chomsky's (1995, 2001) motivations for movement.

**References:** Chomsky, N. 1995b. *The minimalist program*. Cambridge, MA: MIT Press. • Chomsky, N. 2001. Derivations by phase. In: Kenstowicz, M. (ed.), *Ken Hale: A life in language*, pp. 1–52. Cambridge, MA: MIT Press. • Erlewine, M. Y. 2016. Anti-locality and optimality in Kaqchikel Agent Focus. *Natural Language and Linguistic Theory* 34. 429–479.

## Reanalyzing Bukusu "complementizer agreement"

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Lubukusu (Bantu, Kenya) displays agreement on a clause-embedding morpheme AGR-*li*. In (1), the 1PL matrix subject triggers 1PL agreement on the stem -*loma* 'speak/say' and the element AGR-*li*. In prior literature, AGR-*li* is treated as a complementizer equivalent to English "that", with the exceptional property being that it displays agreement (Diercks 2010,2013; Carstens 2016; Diercks et al 2020). We argue that -*li* in (1) is the overt realization of the verb "say", which heads a truncated clause adjoined to the matrix clause, exhibiting run-of-the-mill subject-verb agreement, cf. (2).

(1) **Alfredi ne nasi** khw-a-lom-a **khu**-li ba-keni b-ool-ile
    *1Alfred and I* *1PL.SM-PST-speak-FV* *1PL-LI* *2-guests* *2SM-arrive-PFV*
    'Alfred and I said that the guests arrived.' (Diercks 2010: 298)

(2) [ [Alfred and I]ᵢ [VP [VP speak (something) ] [XP *pro*ᵢ say [ guests arrived ] ] ]

Based on our analysis, the AGR-*li* clause is not selected by V or N; instead, the AGR-*li* clause modifies the matrix VP. We argue that this is the same adjunction strategy observed in (3).

(3) **Alfredi e**-ngil-a mu-nju **a**-tim-a.
    1Alfred 1SM-enter-FV 18-house 1SM-run-FV
    'Alfred entered the house running.'

In (3), the "running" clause describes the manner of "entering", We argue that the agr-*li* clause in (1) is the same type of modifier.

**References:** Carstens, Vicki and Michael Diercks (2013): Agreeing How? Implications for theories of agreement and locality. *Linguistic Inquiry* 44.2: 179-237. • Diercks, Michael (2010): Agreement with Subjects in Lubukusu. Ph.D. dissertation, Georgetown University. • Sikuku, Justine and Michael Diercks (2020): Object Marking in Bukusu: Information Structure in the Verb Phrase. To appear in the *Proceedings of ACAL 50*. • Carstens, Vicki (2016): Delayed Valuation: A reanalysis of "upwards" complementizer agreement and the mechanics of Case. *Syntax* 19.1:1-42.

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## Copulas and complementizers in Kinyamulenge

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This paper makes a formal connection between the semantics of Indo-European mood and Bantu complementizers. I examine an interaction between copulas and complementizers in Kinyamulenge (Bantu; JD 61). In Kinyamulenge, there are distinct copulas for stage-level predication (*kuba*) and individual-level predication (*ni*), (1). The distinction collapses however in certain embedding environments. Under the complementizer *kó*, all non-verbal predication uses the copula otherwise found for stage-level predication, *kuba*, (2).

(1)  Mary  √ni/ #ari    Munyamulenge.
     *Mary*  *COP_{ni}/ COP_{kuba}*   *Munyamulenge*
     'Mary is Munyamulenge.'

(2)  John  a-zi      kó   Mary  *ni/√ari       Munyamulenge
     *John*  *1SM-know*  *COMP*  *Mary*  *COP_{ni}/ COP_{kuba}*  *Munyamulenge*
     'John knows that Mary is Munyamulenge.'

I explain why *kuba* is preferred under *kó* by first appealing to analyses of the stage/individual copular distinction in terms of "boundedness": stage-level copulas are felicitous when the property is boundedly true, that is, true in some contexts, but not in others (e.g., Deo et al. 2016). I argue that the stage-level copula *kuba* is available under *kó* because the embedded clause environment is "partitioned" into P and ¬P worlds, thus providing a licensing "bounded" environment for *kuba*. The proposed semantics for the complementizer *kó* adopts directly from recent work on the semantics of subjunctive mood in Indo-European languages, which has been proposed to similarly partition worlds (Mari & Portner 2018; Giannakidou & Mari 2021). Further similarities and differences between Indo-European and Bantu are discussed.

**References:** Deo, A., Sanchez-Alonso, S., and Pinango, M. (2016): Alternative circumstances of evaluation and the *ser/estar* distinction in Spanish. • Giannakidou, A. and Mari, A. (2021): *Truth and Veracity in Grammar and Thought*. The University of Chicago Press, Chicago. • Mari, A., and Portner, P. (2018): Mood variation with belief predicates: Modal comparison in semantics and the common ground.

## On complementizer choice in Swahili

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This project explores the effect of complementizer choice in Tanzanian Swahili through a combination of quantitative and qualitative methods.

**Corpus Findings**. Our corpus analysis considers two factors reported to have an effect on complementizer choice cross-linguistically: person of the main clause subject (Givón & Kimenyi, 1974), and class of matrix predicate (Kiparsky & Kiparsky, 1971; Hooper & Thompson, 1973). We find that both factors are significant predictors of complementizer choice, though neither uniformly correlates with a single complementizer; $1^{st}$-person subjects and ATTITUDE predicates (e.g. *-amini*, 'believe') correlate with the use of *kwamba*, while $3^{rd}$-person subjects and REPORTATIVE predicates (e.g. *-sema*, 'say') instead correlate with the use of *kuwa*.

**Speaker Judgements**. Elicitations targeting these differences reveal distinct interpretations of *kwamba/kuwa*. With *kwamba*, the belief *that Tanzania will win* is reported to be one that only the speaker can subscribe to; its use in (1) would be appropriate in a purely doxastic context (e.g. the game hasn't started yet). With *kuwa*, this belief is one that everyone in the discourse can reasonably subscribe to; the use of *kuwa* here coincides with a strong evidential base (e.g. Tanzania is leading 5-0 with one minute left).

(1)  Mimi   ni-na-jua        **kwamba**/**kuwa** Tanzania    i-ta-shinda.
     1SG    1SG-PRES-know   COMP/COMP       9.Tanzania   9SM-FUT-win
     'I know that Tanzania will win (the soccer match).'

**Discussion.** Given the results of our corpus study and elicited speaker judgments, we suggest that *kwamba/kuwa* "anchor" the embedded clause to a relevant attitude holder; with *kwamba*, the proposition is evaluated relative to the modal background of the local attitude holder, while with *kuwa*, it is evaluated relative to a larger set of individuals whose shared modal base contains enough information to confidently conclude that *p*.

**References:** Givón & Kimenyi (1971): Truth, belief and doubt in Kinyarwanda. In: *The Papers from the Fifth Annual Conference on African Linguistics*, 5:95–114. • Hooper & Thompson (1973): On the Applicability of Root Transformations. *Linguistic Inquiry*, 4(4):465–497. • Kiparsky & Kiparsky (1971): Fact. In: *Semantics: an interdisciplinary reader in philosophy, linguistics, and psychology*.

# Subordinate clauses and tail-head linkage in Cuwabo narratives

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In this paper, I describe a case of tail-head linkage (cf. Longacre 1968, Grimes 1972) in Cuwabo, a Bantu language from Mozambique. Although not pervasive, THL is frequently found in Cuwabo narratives. In (1), the head clause, i.e. the second sentence starting with *na-óðówána vatákúlu* (in bold), points back to the event expressed by the tail clause *olóóðówána vatákúlu* (underlined) by repeating the whole verbal predicate (verb + locative adjunct). In this process, the morphology of the verb changes: from an inflected form (including subject and TA markers) in the tail clause, the repeated verb in the following head clause appears in the infinitive preceded by the formative *na-*. Guérois (2015: 408-410) calls it "resumptive infinitive".

(1)  *o-ló-óṭúkúluwa-vo*      *ḍóólrínḍó:,*  <u>*o-ló-óðówá-na*</u>      <u>*vatákúlu.*</u>
     SP1-CE-be.taken-LOC16   D.           SP1-CE-go-COM          16-9.house

   **na-ó-ðówá-na**  **vatákúlu**   *o-ved-íw-é*          *ŋaŋgá:*
   RES-INF-go-COM   16-9.house   SP1-look.for-PASS-SBJV   1a.healer

   'They took Ddoolrinddo home. After taking her home, they looked for a traditional healer. '

I discuss the formal and functional characteristics of THL in Cuwabo in a typological perspective. I address the issue of what is repeated from the tail clause, and how it is repeated. I also check temporal-aspectual properties as well as prosodic features. I finally seek to understand when THL constructions are used in narratives and what is/are their pragmatic function(s) in terms of discourse cohesion.

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## Cosubordination in Gĩkũyũ

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Clause linkage in languages is commonly described using the traditional terms of coordination and subordination. Coordination involves joining of equal units with coordinating conjunctions, while subordination involves embedding of adverbial , complement and relative clauses.

This paper deals with clause linkage in Gĩkũyũ, a Bantu language spoken in central Kenya. It argues that although the language exhibits coordination and subordination as clause linkage types; these clause linkage types do not account for the clause linkage type in (1) .

(1) Ma-a-kiny-ir-ɛ      ma-ke-rug-a    ma-ke-re-a    ma-ge-kɔm-a.
   *2-PST-arrive-ASP-FV*     *2-SEQ-cook-FV*   *2-SEQ-eat-FV*   *2-SEQ-sleep-FV*
   'They arrived (they) cooked (they) ate (they) slept.'

Example (1) has four clauses that are not linked by any type of conjunction; although a coordinating conjunction may be put before the final clause. There is no evidence of an embedded adverbial, complement or relative clause. Nevertheless none of the clauses can occur independently. Therefore (1) has aspects of both subordination and coordination; yet it is not wholly any of the two linkage types.

Based on the Role and Reference Grammar (RRG) framework (Van Valin 2005, 2021), I show that since (1) has features of coordination and subordination,it is a case of cosubordination. RRG has three clause linkage types: coordination, subordination and cosubordination, an RRG unique notion. I will show that cosubordination is helpful in describing clause combinations in Bantu and other African languages (Kihara 2017).

**References:** Kihara, C.P. (2017). Aspects of Gĩkũyũ (Kikuyu) complex sentences: A Role and Reference Grammar Analysis. PhD dissertation. HHU. • Van Valin, R.D. (2005). *Exploring the syntax–semantic interface*. Cambridge: CUP • Van Valin, R. D. (2021). Cosubordination. In Van Valin, R. D. (Ed.). *Challenges at the syntax-semantics-pragmatics interface: A Role and Reference Grammar Perspective*, 241-254. Newcastle: Cambridge Scholars Publishers.

# An account of the resumption and trace effect in ex-situ wh-extraction in Likpakpaanl

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This presentation explores long-distance wh-extraction from matrix and embedded clauses in Likpakpaanl, a Mabia language spoken in Ghana.

I contend that there are two reflexes (resumption and trace) involved in subject wh-extraction from an embedded clause, the wh-phrase in A-bar moved from its assigned theta-role position and undergoes successive cyclic movement from Spec-TP to Spec-CP, finally landing in Spec-FocP of the matrix clause. The focus marker then immediately follows the extracted wh-phrase in the left periphery. Also, long-distance subject wh-extraction requires that the base position of the subject is filled with a resumptive pronoun (RP). The RP occupies the Spec-TP position in the embedded clause. I assume two reasons for the use of resumption: Firstly, the RP is used to satisfy the Extended Projection Principle (EPP) of Chomsky (1981). Likpakpaanl has a strong EPP requirement that necessitates a spell-out of the RP in the base position of the extracted wh-phrase. Secondly, Chomsky & Lasnik (1977) and Perlmutter (1968) argue that the complementiser cannot c-command a trace in embedded subject extraction in languages with overt C heads due to the *that*-trace effect. Since Likpakpaanl has an obligatory C-head *ké*, the resumption approach is employed. In long-distance non-subject wh-extraction, there is A-bar movement of the wh-phrase from its canonical position to the Spec-CP before landing in Spec-FocP. A trace is left in the extracted non-subject wh-phrase position since resumption is barred from occurring in the position because an EPP feature cannot license canonical positions of objects.

**References:** Chomsky, N. (1981). Lectures on government and binding. In J. Koster & H. van Riemsdijk (Eds.), *The Pisa Lectures* (1st ed.). Holland: Foris Publications. • Chomsky, N., & Lasnik, H. (1977). Filters and control. *Linguistic Inquiry*, 8(3), 425–504. • Perlmutter, D. M. (1968). Deep and surface structure constraints in syntax. Doctoral Dissertation: Massachusetts Institute of Technology.

## Resumption as a repair mechanism in illicit movement: The case of Dagbani and Kusaal

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This paper provides an account of the syntax of resumption in Dagbani and Kusaal showing that long distance movement of subject wh-phrases and focused elements in Dagbani and Kusaal (Mabia, SVO) requires a resumptive pronoun in the base position of the moved constituent in (1a) and (1b) for Dagbani and Kusaal respectively.

(1) a. Bánìmái     ká      á       téhí        ní        *ói/bɛ́i
       *who-PL     FOC     2SG     think.PFV   COMP      3SG/3PL*

       dá       búà     máá?
       *buy      goat    DEF*

       'Which people do you think that they have bought the goat?'

   b. Anɔ'ɔ́nnamai    kà      fù      tɛ̄n'ɛ̄s      yé        *òi/bài
       *who-PL         FOC     2SG     think.PFV   COMP      3SG/3PL*

       dā'      búg     lá?
       *buy      goat    DEF*

       'Which people do you think that they have bought the goat?'

In (1), the extraction of the embedded subject has triggered the spell-out of a resumptive pronoun in the base position and the resumptive has a binding relationship with the extracted argument. Although resumption ameliorates illicit movement in these languages, it is not a last resort strategy since resumptives do not repair movement out of syntactic islands (Shlonsky, 1992). We account for the syntax of the resumptives arguing it is licensed by a strong overt Extended Projection Principle (Chomsky, 1981) requirement in these languages. We further interrogate if movement in the embedded subject positions in the Mabia languages is really 'movement', since a copy is left in the base position.

**References:** Shlonsky, U. (1992). Resumptive pronouns as a last resort. *Linguistic Inquiry* 23, 443–468. • Chomsky, N. (1981). *Lectures on Government and Binding*. Berlin: Mouton De Gruyter.

# Resumption at the syntax-semantics interface: The case of Bamileke Medumba

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In Medumba, resumption is obligatory with islands including longdistance extractions and is optional with root clauses. I propose that resumptive structures in Medumba are derived by the economy principle of Last Resort — (see a.o. Koopman and Sportiche 1986; Rizzi 1990; Chomsky 1991, 1998; Shlonsky 1992; Bobaljik 1995, Lasnik 1995; Ura 1996; Pesetsky 1997; Collins 2001; Bošković 2011) — and argue that this principle can be syntactically or semantically conditioned. Syntactic Last Resort derives resumptive pronouns in islands to salvage A'-dependencies that would otherwise result in ungrammaticality. Semantic Last Resort is a condition on interpretation that derives resumption in configurations that would otherwise result in ambiguity: Extraction from a root clause is compatible with the *de dicto* and the *de re* interpretation if the tail of the A'-chain is a gap, and is only compatible with the *de re* interpretation when the tail of the A'-chain is a resumptive pronoun.

**References: Bobaljik**, J. 1995. Morphosyntax: The Syntax of Verbal Inflection. PhD dissertation, MIT. • **Bošković**, Ž. 2011. Rescue by PF deletion, traces as (non)-interveners, and the *that*-trace effect. *Linguistic Inquiry* 42:1-44. • **Chomsky**, N. 1991. Some notes on economy of derivation and representation. In R. Freidin (ed.), *Principles and Parameters in Comparative Grammar*. 417-54. Cambridge MA: MIT Press. • **Chomsky**, N. 1998. Some observations on economy in generative grammar. In P. Barbosa, D. Fox, P. Hagstrom, M. McGinnis, and D. Pesetsky (eds), *Is the Best Good Enough? Optimality and Competition in Syntax*. 115-27. Cambridge MA: MIT Press. • **Collins**, C. 2001. Economy Conditions in Syntax. In Collins and Baltin (eds.), *Handbook of Syntactic Theory*. Blackwell. • **Koopman**, H. and Dominique S. 1986. A note on long extraction in Vata and the ECP. *Natural Language and Linguistic Theory* 4:357-74. • **Lasnik**, H. 1995. Case and expletives revisited: on greed and other human failings. *Linguistic Inquiry* 26:615-33. • **Pesetsky**, D. 1997. Optimality theory and syntax: movement and pronunciation. In D. Archangeli and D. T. Langendoen (eds.), *Optimality Theory*. 134-70. Oxford: Blackwell. • **Rizzi**, L. 1990. *Relativized Minimality*. Cambridge MA: MIT Press. • **Shlonsky**, U. 1992. Resumptive pronouns as a last resort. *Linguistic Inquiry* 23:443-68. • **Ura**, H. 1996. Multiple Feature Checking: A Theory of Grammatical Function Splitting. PhD dissertation, MIT.

## 'Fake' logophors? The case of Ewe

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It is a shared assumption on all accounts that the Ewe logophor *yè* is licensed by an operator associated either with the verb (ATT) e.g., (von Stechow 2004), or complementizer (*be*) e.g., (O'Neill 2015, Bimpeh and Sode 2021a). However, this is not always the case in Ewe (Bimpeh and Sode 2021b). The occurrence of *yè-fe* 'his' in (1) is fake because it is not bound on the sloppy reading.

(1) Kofi ko yé di be yè-a wɔ **yè-fe** dɔ.
Kofi only FOC want COMP LOG-POT do LOG-POSS work
'Only Kofi wants to do his homework.' (Ewe)

How do we make room for such fake instances? Following Bimpeh and Sode (2021b), on the sloppy interpretation of (1), *yè* needs to be bound by the focused DP (*ko yé*). The assumption is that the logophoric features in Ewe are subject to Heim (2008)'s feature transmission. This would look like (2) under the assumption that the log feature is associated with the complementizer, *be* and is transmitted under binding in a binding chain.

(2)   Base generated: **only**
**Kofi wants** [*be*$_4$-LOG [[ only $\varnothing_4$] **did** $\varnothing$2's work]]

After transmission at PF:
**Kofi wants** [*be*-LOG 4 [LOG-[**only** LOG 4] 2 [LOG$_2$ **did** LOG$_2$'s **work**]]]

**References:** Bimpeh, A. A. and Sode, F. (2021a): Evidence against de se binding: Strict readings of the logophoric pronoun in Ewe. In *Proceedings of TripleA, MIT Working Papers in Linguistics 6*, 1–15. • Bimpeh, A. A. and Sode, F. (2021b): Not all occurrences of logophoric pronouns are bound by a logophoric operator: The case of Ewe. *Snippets* 41, 1–2. • Heim, I. (2008): Features on bound pronouns. *Phi theory: Phi-features across modules and interfaces* 35–56. • O'Neill, T. (2015): The distribution of the Danyi Ewe logophor, Talk at the *Annual Meeting of Linguistics Society of America* (LSA) 90, Washington D.C. • von Stechow, A. (2004): Binding by verbs: Tense, person and mood under attitudes. In Susanne Lohnstein and Horst Trissler (eds.), *The syntax and semantics of the left periphery*, 431–488. Berlin: Mouton de Gruyter.

## AG 4

# Change of state verbs – Empirical and theoretical perspectives

Paola Fritz-Huechante & Antonio Machicao y Priemer

# Two types of transitives with inchoative semantics

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A lot of work has been devoted to the question of whether the (intransitive) anticausative (aka *inchoative*) variant (e.g. (1b)) of causative (transitive) verbs (1a) involves causative semantics. The view developed in Kratzer 2005, Schaefer 2008 and Alexiadou et al. 2015 is that Voice put aside, the transitive and intransitive variants of causative verbs have exactly the same semantics: they denote a set of causing events leading to some state. This view gives up the assumption that changes-of-state and causing events are fundamentally different types of events. Rather, changes-of-state are conceived as a subtype of causing events, namely the most proximate causes of the state (i.e., the closest causes in time and space). The difference between causative and anticausative VP is then reduced to the way causing events in the denotation of the VP are identified in the ontology – as changes-of-state for the anticausative, or as mereological sums of actions and changes-of-state for the causative (Martin 2020). In this paper, we contrast agentive causative statements (1a) with two other transitive construals of causative verbs (cf. (2a–b)), as analysed by Martin 2020 and Schäfer 2021 respectively. In line with their proposal, we argue that while in (1a), the causing events denoted by the VP are identified as sums of actions and changes-of-state, in (2a–b), the causing events denoted by the VP are identified as pure changes-of-state, exactly as in anticausative statements (1b). In this respect, both transitive VPs in (2a–b) have inchoative semantics (i.e., they denote a set of causing events identified as changes-of-state). However, while transitive anticausative statements (2b) just describe a change, non-agentive causative statements (2a) express a more complex causal chain, since their subject denotes an external cause of the change-of-state described by the VP.

(1) a.  Des généticiens changeront les formes de la vie sur terre. 'Geneticists will modify the shapes of life on Earth.'                                    (**agentive causative**)
    b.  Les formes de la vie sur terre changeront. 'The shapes of life on Earth will change.'                                                      (**intrans. anticausative**)
(2) a.  La consommation d'énergies fossiles *aujourd'hui* changera les formes de la vie sur terre *demain*. 'Today's consumption of fossil fuels will change the shapes of life on Earth tomorrow.' (**non-agentive causative**).
    b.  La vie sur terre changera ses formes demain. 'Life on Earth will change its shapes tomorrow.'                                              (**trans. anticausative**)

# Change of state: From the BECOME operator to the mereotopology of events

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How can and should we model the semantics of change of state verbs? When I first read Dowty (1979), I thought nothing could be more straightforward, more precise, and therefore more appropriate than his truth-conditionally defined BECOME operator. Over the years, however, I have seen that the semantics of change of state verbs is more complex than I thought. In particular, I have come to appreciate the subtle but important difference between analyses whose central focus is to capture *truth conditions* associated with verbs vs. those whose goal is to capture the *mereotopological* properties of events described by verbs (see, e.g., Casati and Varzi 1999 on mereotopology applied to language in general; see Piñón 1997 for one of the few explicit applications of mereotopology in verb semantics).

In this talk, I explain what I have come to understand as the main differences between the simply truth-conditional and the mereotopological ways of thinking about change of state verbs. In the latter category I would put, for example, the work of Pustejovsky (1991) and Williams (2015), although they do not themselves use the term "mereotopology." The fact that the two approaches are not incompatible in principle, and that mereotopology has a less established tradition in semantic theory, has obscured these differences. I will discuss how adopting a mereotopological perspective has helped me think in new ways about verb semantics, illustrating with examples from Marín and McNally (2011) and McNally and Spalek (to appear). Finally, I will make some provocative suggestions concerning the relation between work in verb syntax and these two perspectives on verb meaning.

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# Reflexive binding, order and change of state in certain German prefix and particle verb types

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We present an analysis of the change of state interpretation of German verbs that feature one of the inseparable prefixes *durch*, *über*, *um* or *unter* or the separable particle *zu*. Accordingly, the prefix verb types are restricted by a relation to a directional adverbial structure (*build on*, *build around*), cf. the applicative structure in (1a) and adverbial structure in (1b).

(1) a. Man    umbaut    [die Anlagen]*Theme* (mit    Sandburgen).
        *One    surrounds the   facilities           with    sand.castles*

   b. Man    baut   Sandburge   [um    die   Anlagen]*Goal*.
        *One    builds sand.castles   around   the   facilities*

The prefix verb structure (1a) presents the THEME argument as affected in an eventuality that involves it as well as the GOAL, cf. (1b) as entailed by (1a). Reflexive binding of the element providing the eventuality's endpoint thus derives a perfective (totalized, result state) property predicated of the THEME. Surprisingly in view of fundamentally different particle verb syntax, *zu* produces types partaking in the same constructional pattern (1a) also without corresponding adverbial structures, cf. the types in (2).

(2) *zutexten* 'overtext', *zuspammen* 'molest (close off) with spam' (cf. *zu-müllen* 'litter'), *sich zudröhnen* 'get high on drugs' (cf. *sich besaufen* 'get drunk', *sich zusaufen* 'get completely drunk deliberately')

*zu* mimics the prefix verb structure (1a) following Brandt (2019, §3.2.2, §4.2.1) in that it marks the illegal reflexivization of an asymmetric relation (directional or comparative). The resulting contradiction (symmetry | asymmetry) effects the *ex situ* interpretation of an object property, falsely signalling manipulation of the internal THEME role as identifying prefix verb structures and providing access to the pertinent configurations.

**References** Brandt, P. 2019. *Discomposition Redressed. Hidden Change, Modality, and Comparison in German*. Tübingen: Narr. Open access: https://elibrary.narr.digital/content/pdf/10.2357/9783823392439.pdf

# Building Resultative Serial Verb Constructions in Benue-Kwa Languages

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As well known, resultative SVCs in Benue-Kwa languages consist of some agentive, typically transitive verb $V_1$ and unaccusative $V_2$. As regards their aktionsart, potential realisations of $V_1$ involve sometimes telic accomplishments or achievements but occasionally also atelic activities. In contrast, $V_2$ is typically realised as a stative predicate or an achievement, such as Yorùbá *fà X ṣí* 'pull X be.open=pull open' or Ẹ̀dó *hòó X huán* 'wash X be.clean', which surface as SVC, and Igbo, which surface as root serialisations, such as *rí-ju X* 'eat be.full X'. The main interest of this talk is how the combination of two atelic predicates can yield a complex predicate which expresses a single event with change of state semantics (shared TAM and polarity values). As shown by Ogie (2009:235–238, 445) resultative SVCs in Ẹ̀dó may express both: complex events that are degree states such as *hòó X huán* 'wash X be.clean' and complex events that express punctual achievements such as *suá X dé* 'push X down'.

It will be shown here how the semantic composition can be achieved in the Situation Semantics framework of *Type Theory with Records*, as suggested by Cooper (2005) and Ginzburg (2012), by means of merger of situation types in TTR, in which two situation types are fused into a single complex one and in which these two sub-situation types are ordered temporally. Furthermore it will be argued that the aspectual characteristics (*achievement* vs. *degree state*) is determined by the event expressed by $V_2$. The shared TAM and polarity values will be modelled with a feature for the macro-event property as introduced by Bohnemeyer et. al. (2007). Unlike derivational approaches for SVCs such as Zimmermann/Amaechi (2020), the analysis presented here is computation-friendly.

**References:** Bohnemeyer, J. et al. (2007): Principles of event segmentation in language. *Language* 83.3, 31–36. • Cooper, R. (2005): Austinian Truth, Attitude and Type Theory. *Research on Language and Computation* 3, 333–362. • Ginzburg, J. (2012): *The interactive stance*. Oxford: OUP. • Ogie, O. (2009): Multi-verb constructions in Ẹ̀dó. PhD-thesis Trondheim. • Zimmermann, M. and Amaechi, C.M. (2020): One but not the same. Ms. Potsdam.

# Syntax-semantics discrepancy in deadjectival and inherently-directed motion verbs in Japanese

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Deadjectival verbs (V) in Japanese show two types of transitivity alternation (Sugioka 2001). First, Vs denoting externally-caused CoS *A-me(ru)* (e.g. *heya o atata-me(ru)* 'warm up the room') alternate with decausativized CoS *A-mar(u)* (e.g. *heya ga atata-mar(u)* 'the room warms up'). A more marked pattern involves internally-caused CoS with Vi and Vt denoting the same type of inchoative event, as follows.

(1) a. Kaze no ikioi ga tuyo-mar-u.     b. Kaze ga ikioi o  tuyo-me-ru.
    *wind* **GEN** *force* **NOM** *strong-become-***PRS**  *wind* **NOM** *force* **ACC** *strong-cause-***PRS**

    'The wind's force strengthened.'        'The wind strengthened its force.'

Sentences like (1b) are limited to cases with non-agentive subject NP with inherent control (e.g. natural forces) and its attribute as direct object NP. In contrast, externally-caused CoS Vs cannot engage in this type of alternaton to yield *\*Heya ga kuuki o atata-me-ru.* 'The room warms up its air.' The (1a/b)-type alternation can also be observed in constructions with inherently-directed motion Vs (Levin and Rappaport-Hovav 1995),  e.g. *agar(u)* 'rise' and *age(ru)* 'raise'.

(1b) notably shows a discrepancy between its transitive V morphology /case marking and the semantic interpretation as an inchoative event of degree achievement, and resists passivization or synthetic compounding that would normally apply to transitive Vs. A pseudo-reflexive LCS can account for such behaviors and aspectual properties, which may shed a light on how CoS constructions with reflexive properties (Koontz-Garboden 2009, a.o.) can manifest in a language without reflexive Vs.

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# Polarity and standards of comparison: The interpretation of absolute adjectives in the *not very* construction

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There is a growing literature indicating that truth-conditional and connotative meanings are much more intertwined than standardly assumed in Semantics and Pragmatics (e.g., Nouwen, 2021; Beltrama, 2021). The interpretation of negated adjectives presents an exciting challenge to the Semantics/Pragmatics-Interface as grammatical and connotative or social aspects go hand in hand in the use and interpretation of such expressions (e.g., Mazzarella & Gotzner, 2021). The current paper focuses on antonymic pairs involving so-called absolute adjectives and how they are interpreted in the *not very* construction. For example, an utterance like *Joe's suit is not very clean* may implicate that 'Joe's suit is dirty'. Such a pragmatic inference has been referred to as negative strengthening and assumed to be socially motivated (Brown and Levinson, 1987; Horn, 1989). As we will show here, modified absolute adjectives (*not very clean*) can perform a similar pragmatic function, especially if they are evaluatively positive. In two experimental studies, we found that evaluativity and scale structure jointly modulate negative strengthening with positive (E+) and maximum standard adjectives (e.g., *clean*) being more likely to be strengthened than negative (E-) and minimum standard ones (e.g., *dirty*) in the
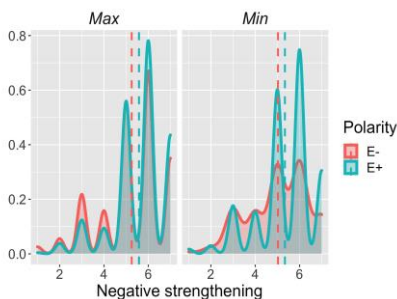


*not very* construction. We interpret these findings as evidence that speakers may jeopardize informativity to arrive at a more positive message, extending the Polyanna Principle (Boucher & Osgood, 1969) to complex expressions.

*Figure 1: Mean degree of negative strengthening by Polarity (A) and Polarity/Adj. type (B)*

## On the underspecification of measurement

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As seen in (1)-(5), the interpretation of natural language degree expressions can be ambiguous or underspecified in various ways. *Large* in (1) is underspecified for dimension (e.g. area, population size). *Dry* in (2) holds dimension fixed but is underspecified for scale structure (Kennedy&McNally 2005). *Few* in (3) exhibits a cardinal/proportional ambiguity that has been attributed to underspecification of measurement (Bale&Schwarz 2020). The comparatives in (4) allow faultless disagreement between speakers, suggesting that the corresponding measures depend on a judge or on the resolution of multidimensionality (Solt 2018). Finally, the contrasts in (5) have been used to show that even cardinality can be measured at different levels, with certain quantifiers sensitive to the difference (Solt 2016).

(1)     London is larger than New York.                    **dimensional**

(2) a.  The towel is ?very / completely dry.               **scale structural**
    b.  My skin is very / ?completely dry.

(3)     Few students attended the party.                   **cardinal/proportional**

(4) a.  The Picasso is more beautiful than the Miró.       **judge-related**
    b.  Moe is healthier than Curly.                       **multidimensional**

(5) a.  Most / 61% of our students are female.             **measurement level**
    b.  Most/?61% of pastel colors have a calming effect.

I argue that all of these patterns derive from the same basic source: the measure functions $\mu$ encoded in natural language are inherently underspecified, determining at most a dimension of measurement rather than a particular scale. I discuss consequences of this view, as well as questions it raises, particularly relating to how such underspecification is constrained.

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# Two dimensions in states of physical disturbance

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Deverbal adjectives of change of state (CoS) verbs in English such as those in (1) describe a "disturbance" in an affected object (the "host") (Karmo 1977). I argue that these adjectives describe an undesirable affectedness in the host, the degree of which relates to two dimensions: the physical extent of the disturbance, and the physical extent to which the host is affected.

(1)     The tank is **cracked**./ The sink is **scratched** and **dented**. (COCA[†])

   "Disturbance" adjectives share a root form with a noun, and where the adjective applies, an existential sentence with a corresponding noun heading the pivot is also true (2).

(2)     X is dented/cracked/… |= There is a dent/crack/… in X.

Adverbs of negative affect e.g. *badly*, *severely* etc. modify disturbance adjectives as degree modifiers, with no antonymous use of *well* (3a). This contrasts with evaluative *badly* (3b), which allows antonymous *well*, reflecting the "undesirability" of disturbances.

(3)     a.  a badly/#well bent/creased/cracked/scratched/dented X
        b.  a badly/well written/painted/designed X

A badly dented or scratched X may show many scratches or dents, or only a few, perhaps even only one scratch or dent, but of a serious nature, e.g. very long or very deep. Both cases may hold simultaneously, but the two interpretations can be independent. That is, disturbance adjectives are multi-dimensional (Sassoon 2011, Kennedy 2013, Solt 2018) in that affectedness may be evaluated as the extent of the disturbance, or as the extent to which the host is affected.

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# Scales in lexical decomposition: The role of the root

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In decompositional approaches (Dowty 1979, Beavers and Koontz-Garboden 2020) stative and change-of-state words are built from a stative root plus an event template that determines the event or state's temporal and causal flow. Verbs of change reflect a stative root and a BECOME-type template indicating that the state obtains at the end of the event. However, on scalar approaches to change the root instead denotes a measure function mapping entities to property degrees along a property scale, where templatic structure introduces comparison of the patient's initial and final degrees. This approach provides a more unified way of subsuming a range of different types of changes of state under a single umbrella (creation/consumption, property change, motion; Beavers 2012) while also capturing the relationship of scale type to lexical aspect (Kennedy and Levin 2008).

We present a novel argument that English verbal roots denote states and not measure functions (see also Wellwood 2015), where the relevant state has comparison built into it already. The role of templates is to fill in the details of the root-supplied comparison and/or derive new types of comparison, while also providing access to different degree arguments for overt expression. This argument is based on evidence from sublexical modification, comparative morphology, degree modifiers, and the relationship of verbs to their corresponding adjectival forms. This approach reconciles scalar analyses of change with traditional decompositional theories, while also providing a novel argument that verbs of change are not built on simple or comparative adjectives (cp. Bobaljik 2012), but instead they are all derived equipollently from the same roots.

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# Change of state verbs and aspect in Bulgarian

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Unlike English CoS predicates (achievements, accomplishments) whose aspectual properties (esp. telicity) may vary depending on the properties of their arguments (telic when the object is a quantized DP, atelic otherwise, cf. e.g. Beavers 2013), the interpretation of Bulgarian CoS verbs does not hinge upon the referential properties of the argument; instead, they are *restricted* to quantized DPs, cf. (1b)-(1c). In this talk, I will present evidence pointing towards a systematic morphological encoding of aspectual properties of Bulgarian verbs such as telicity, punctuality, event maximality and culmination. I argue more specifically that in Bulgarian, achievements and accomplishments have a specially designated morphology, where **(i)** a telicizing prefix "turns" a corresponding bare imperfective verb denoting a state or activity into an achievement (1a)-(1b), and **(ii)** a productive morphological operation called secondary imperfectivization realized by means of suffixation "turns" prefixed perfective verbs with achievement interpretation into so-called secondary imperfective verbs with accomplishment interpretation, cf. (1c). The corresponding bare imperfective verbs are not subject to the above restriction and are interpreted as activities or states independently of the nature of the object, cf. (1a). I take this evidence to suggest that verbal prefixation and secondary imperfectivization in Bulgarian can be seen as morphological mechanisms that are used to systematically modify the aspectual meaning of a verbal base.

(1) a. Marija **pi** edna caša vino/vinoto/vino ʔza/v prodˇalženie na edin cas.                     *quantized or non-quantized, atelic, activity*

    b. Marija ***iz pi*** edna caša vino/vinoto/*vino za/ʔv prodˇalženie na edin cas.                          *quantized, telic, achievement*

    c. Marija ***iz piva*** edna caša vino/vinoto/*vino za/ʔv prodˇalženie na edin cas.                          *quantized, telic, accomplishment*

    ≈ 'Mary drank a glass of wine/the wine/wine in/for an hour.'

**References:** Beavers, J. (2013). Aspectual classes and scales of change. *Linguistics* 51(4), 681–706.

# Serbo-Croatian verbal theme vowels and the composition of aspect and argument structure

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Whether grammatically relevant information is limited to the functional material (Borer 2005, or Marantz 1995) or is also specified on roots (Rappaport Hovav 2017, 2021, Beavers & Koontz-Garboden 2020) is a matter of ongoing debate. We tackle the status of theme vowels (TVs).

Our corpus based research on Serbo-Croatian (SC) (on Arsenijević et al. 2021), testing the hypothesis that the two most productive TVs in SC, *i:i* and *a:a* have different grammatical effects, shows that: (1) in minimal pairs of verbs sharing the same root (e.g. *voz-**i**-ti* vs. *voz-**a**-ti* 'to drive', directed vs. undirected motion), *i:i* verbs tend to be directed/scalar/telic, unlike *a:a* verbs, which are unrestricted in this respect; (2) with roots denoting properties or sets of individuals, *i:i* verbs receive the incremental interpretation (*become (more) [[root]]-like*), while *a:a* verbs are relational (*act/be in a way associated with [[root]]*); (3) event-denoting root nouns, which correlate with resultativity and/or telicity (Svenonius 2004), are more likely to pair up with *i:i* verbs than with *a:a* verbs; (4) all prefixless *a:a* verbs are either imperfective or biaspectual, while *i:i* verbs constitute 64% of all prefixless perfectives.

We discuss two analyses of the attested effects: 1) TVs carry functional features (e.g. [scale] on *i:i*), and 2) pragmatics maps marked TVs with marked interpretations along a salient dimension (incrementality, aspect, aktionsart, directedness). The variation of effects depending on the (type of) competition and their tendential nature favor the latter.

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# An account for change of state verbs cross-linguistically

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Change of state verbs (CoS) lexicalize a function that measures scalar change (Kennedy & Levin 2008; Kennedy & McNally 2005, inter alia). Typically CoS verbs undergo the causative/anticausative alternation (*He broke the window* vs. *the window broke*) (e.g. Levin & Rappaport Hovav 1995; Alexiadou et al. 2006, 2015; Schäfer 2008, 2021). Building on Levin's (1993) non-deadjectival CoS verbs (*break*, *cook*, and other alternating CoS verbs, e.g. *close, melt*) (Beavers & Koontz-Garboden 2020), I present evidence from the morphological typology of this verb class in English, German - they appear (i) as morphologically unmarked (unmarked anticausatives) (*die Sonne schmilzt das Eis* vs. *das Eis schmilzt*), (ii) as (reflexively) marked (marked anticausatives) with the reflexive pronoun 'sich' (Schäfer 2008, Haspelmath 2019, inter alia) (*Hans öffnet die Tür* vs. *die Tür öffnet sich*) - and Greek: they appear (i) with a morphological marking (*i Ana vrazi ti supa*, the Ana boils.ACT the soup.ACC vs. *i supa vrazi*, the soup.NOM boils.NACT), (ii) without a morphological marking (*i Ana anikse tin porta*, the Anna.NOM opened the door.ACC vs. *i porta anikse*, the door.NOM opened), (iii) with an optional marking (*to trapezomantilo lerose apo mono tou*, the tablecloth.NOM dirtied.ACT by self it vs. *to trapezomantilo lerothike apo mono tou*, the tablecloth.NOM dirtied.NACT by self it, from Schäfer 2008: 26 (43b,c respectively)). This talk aims to present a set of rules for CoS verbs cross-linguistically (cf. Sioupi 2019, 2021a). I outline a template that looks at the (non-deadjectival) CoS verbs from different angles, i.e. argument structure and valency theory (Herbst 1992, 2011), taking also into account decomposition structure formally (Dowty 1979), providing more evidence for the different patterns found in the languages under investigation.

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# Anticausatives are weak scalar expressions: Experimental evidence from Greek

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In this paper we compare the interpretation of anticausative (ACs) and passive of causative (PCs) verbs. Building on Alexiadou et al. (2006, 2015), Schäfer (2008), we argue that both causatives and ACs involve a cause event and ACs differ from causatives only in the presence and the nature of a Voice head: morphologically unmarked ACs lack Voice, morphologically marked ACs involve an expletive Voice head and passives of causatives involve a contentful Voice head which introduces the agent for the causing event. Under this view, PCs are predicted to entail their AC counterparts.

(1) a.  i valitses aniksan. (AC)  ⇐ b.   i valitses anihtikan.  (PC)
    a'.  The suitcases opened   ⇐ b'.   The suitcases were opened

On this view, an (agentive) causative and its anticausative counterpart are scalar expressions such that the former asymmetrically entails the latter (Schäfer & Vivanco 2016). The question is whether an implicature that there is no Agent is derived with an AC. To test this hypothesis, we pe formed on the basis of Greek data a Truth Value Judgement task (N=40) with pictures varying the AC/PC verb form and the picture scenario (agent vs. non-agent) as the two factors. We had 4 items per condition with 4 verbs (*clean*, *close*, *empty*, *open*) which appear as unmarked ACs and PCs (1a,b). We analysed the data in two separate analyses for 'unmarked AC' and 'PC'. We observe a significant difference between the agent and nonagent-scenario in the case of anticausatives. The AC is accepted 54% of the time in the agent-scenario, compared to 76% for the PC, suggesting that subjects indeed derive an implicature. Our results suggest that speakers find a semantically transitive alternative relevant when they consider an AC in an agentive context (cf. Fox & Katzir 2011).

**References:** Alexiadou, A, E. Anagnostopoulou & F. Schäfer (2006): The properties of anticausatives crosslinguistically. • Schäfer, F. & Vivanco, M., (2016): Anticausatives are weak scalar expressions, not reflexive expressions, *Glossa* 1(1), p.18.

# Measurement scales and competition between alternatives

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Two bodies of literature tackle the role of scales in adjective interpretation: The one on measurement scales in semantics and the one on Horn scales/scalar implicature in pragmatics (see Solt, 2015 for an overview). To date, there has been little research into the interplay of the two kinds of scales (but see Gotzner, Solt, & Benz, 2018). We postulate that scale structure may be crucial to implicature computation in the adjectival domain.

We present an experimental study on the interpretation of relative and absolute gradable adjectives differing in informational strength, evaluative polarity and presence of negation (8 conditions for each adjective type).

Our results show that participants use distinct portions of the response 5-point scale when interpreting predication statements with weak vs. strong (positive/negative) scale-mates of non-negated relative (e.g., *large* vs. *gigantic*) or absolute adjectives (e.g., *clean* vs. *pristine*), indicating that they are sensitive to the informational strength of the different expressions. These distinctions are less pronounced when the same expressions appear under negation. We find that, under negation, middling interpretations ('neither large nor small') favor relative adjectives (*not small/tiny/gigantic*), while a polarity asymmetry due to negative strengthening (inference to the antonym) arises for weak relative terms (*not large* vs. *not small*), and possibly for strong absolute terms (*not pristine* vs. *not filthy*). Weak absolute terms are largely interpreted semantically (*not clean* ⟹ 'dirty', not dirty ⟹ 'clean'; see Rotstein & Winter, 2004; Kennedy & McNally, 2005), while fine scale granularity interacts with minimum/maximum standard semantics triggering additional inferences: middling ('neither clean nor dirty') and inference to the antonym. Current studies in our lab investigate the extent to which these types of reasoning hinge on the direct comparison of competing alternatives presented concurrently in our specific experimental setup.

Overall, our findings are in line with degree-based analyses of gradable adjectives and they show that different properties of measurement scales—the type of standard and granularity—as well as evaluative polarity are responsible for the derivation of different (pragmatic) inferences (see also Gotzner et al., 2018).

# State/change of state lability and the meaning of verbhood

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Across languages, words with the meanings of adjectives in English (henceforth: property concept lexemes 'PCLs', following Thompson 1989) often have translational equivalents that are not adjectival, but nominal or verbal in category (Dixon 1982; Thompson 1989; Hengeveld 1992; Bhat 1994; Wetzer 1996; Stassen 1997; Beck 2002; Baker 2003). Regardless of the category of the property concept state, all languages however have ways of describing changes *into* states, which generally bear some derivational relation to the word describing the state the change is into, e.g., *redden*, where the suffix *-en* relates the PCL *red* to the word describing a change into it.

More specifically, PCLs exhibit three types of derivational relationship to words describing changes into them. The first, where change of state is derived from the static state, is exemplified by English, e.g., stative *red* versus change of state *redden*. The second, where both state and change of state are derived from a bound root, which we call "equipollent" (cf. Haspelmath 1993) is found for example in Ulwa, where e.g., stative *yam-ka* 'good' and change-of-state *yam-naka* 'get better' are separately derived from a common bound root *yam-*. The final type is "labile", where there is no surface morphophonological difference between state and change of state lexemes. This type is illustrated for example by Tongan (Koontz-Garboden 2007:117), where e.g., the *loloa* 'long' can be either stative or change-of-state, depending on context. It is this relationahsip that is the focus of our talk.

Previous work, based on either convenience samples of languages or individual ones, suggests a link between the categorizing of PCLs as verbs in a language and a labile relationship between the PCL and the associated change of state form (Koontz-Garboden 2005, 2007; Matthewson et al 2015). In this talk, we provide more explicit and systematic crosslinguistic evidence using the database "Verbal Roots Across Languages" (https://verbal-roots.la.utexas.edu) for this claim, arguing that our results show that only verbs can describe changes of state (when defined as in this talk), as opposed to nouns or adjectives, which cannot, shedding light on the correlation between PCL category and change of state derivation.

# Adjectives and telicity - An empirical study of resultative adjective constructions in German

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Telicity variation in transitive change of state verbs, more precisely degree achievements (e.g., *to dry* vs. *to widen*), has been attributed to the scalar properties of the adjectival core of the particular verbs (Kennedy & Levin 2008). Focusing on the scalar properties of adjectives, the present experimental study investigates adjectives with an upper closed scale (such as *clean* and *empty*) regarding telicity (Kennedy & McNally 2005).

We asked whether German-speaking adults (N=21) assign a semantically telic interpretation to sentences containing an adjective. A novel Truth Value Judgement task was developed, containing 16 test items varying in event type (COMPLETE/INCOMPLETE) and structure (ADJECTIVE/NO ADJECTIVE). The sentences contained the incremental theme verbs *wipe*, *blowdry*, *drink*, and *iron*; in the ADJECTIVE condition they were combined with *clean*, *dry*, *empty*, and *flat*, respectively. If the adjective causes semantic telicity, incomplete events should not be accepted in the ADJECTIVE condition in contrast to the NO ADJECTIVE condition. Accordingly, the comparison of sentences with and without an adjective for incomplete events is crucial for our question. The acceptance of incomplete events in the ADJECTIVE condition was very low (Mean = 0.38/4, SD = 0.57) and significantly below the acceptance rate in the NO ADJECTIVE condition (Mean = 2.81/4, SD = 0.13, $t(20)$ = -6.83, $p < 0.001$). Our findings provide first experimental evidence for the hypothesis that upper closed scale adjectives are strong telicity markers, resulting in semantic telicity when combined with incremental theme verbs and a quantized NP. We conclude that incremental theme verbs do not already introduce scales as part of their lexical meaning; the scale is supplied by adjectives that exhibit an upper closed scale.

**References:** Kennedy, C. & Levin, B. (2008): Measure of change, 1–30. • Kennedy, C. & McNally, L. (2005): Scale structure, degree modification, and the semantics of gradable predicates. *Language* 81 (2), 345–381.

## Does perfective aspect entail culmination in Russian?

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The crosslinguistic availability of non-culminating interpretations of telic accomplishments has been increasingly recognized in the literature of the past two decades (e.g. Arunachalam & Kothari 2010, Filip 2008, Hay et al. 1999, van Hout 2018). However, Slavic languages, including Russian, are commonly argued to categorically disallow such an option, as demonstrated, for instance, by the contrast between (1a) and (1b):

(1) a.  Mary ate the sandwich, but as usual she left a few bites.

(from Hay et al. 1999)

    b.  Ivan s'el        buterbrod, #no kusoček    ostavil.
       Ivan eat.PRF.3SG  sandwich, #but piece-small  left.
       'Ivan ate the/a sandwich, #but left a small piece.'

(from Martin 2019)

Filip (2017) proposes that the morphosyntax of the perfective in Russian encodes the maximality of the event and enforces a culminating interpretation of accomplishments in its scope. However, our data show that non-culminating readings of telic accomplishments, particularly the cancelation of the maximal reading (e.g., 'but left a small piece'), are, in fact, freely available for Russian speakers.

**Selected references:** Filip, H. (2017). The semantics of perfectivity. *Italian journal of linguistics*, 29(1), 167–200. • Hay, J., Kennedy, C., & Levin, B. (1999). Scalar structure underlies telicity in "degree achievements". *SALT 9* (pp. 127–144). • Martin, F. (2019). Non-culminating accomplishments. *Language and Linguistics Compass, 13*(8). • Tenny, C.L. (1994). *Aspectual Roles and the Syntax-Semantics Interface*. Dordrecht: Kluwer. • van Hout, A. (2018). On the acquisition of event culmination. In K. Syrett & S. Arunachalam (Eds.), *Semantics in Language Acquisition* (pp. 95–122). Amsterdam: John Benjamins.

# Change-of-state verbs in scientific writing across time

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This talk discusses an analysis of change-of-state verbs (*saturate, dilute*, etc.) in a diachronic corpus of scientific periodicals (RSC, Fischer et al. 2020). The close relationship between morphosyntactic patterns and semantics helps to identify change-of-state verbs and their contexts. Verbs that involve a change in the composition of an entity often occur in similar morphosyntactic contexts as manner-of-motion verbs in the RSC (e.g. as -ing-participles or gerunds or followed by directional prepositional phrases). Change-of-state verbs typically have an external causer in the RSC as the data contain many experimental reports. Interactive visualizations of word embeddings with groups of semantically similar words provide visual co-occurrence information and are used for identifying groups of related verbs in the data (e.g. change-of-state verbs from experimental contexts in the field of chemistry). To observe whether change-of-state verbs are used in a rather conventionalized or productive way, the number of bits transmitted by these forms, i.e. their surprisal, is measured (cf. Degaetano-Ortlieb & Teich 2017).

The results demonstrate the increasing importance of change-of-state verbs used in conventionalized patterns. Specialization and diversification of the sciences is reflected by the growing complexity of morphosyntactic patterns these verbs occur with and by the increased usage of morphologically more complex change-of-state verbs and their derivations. Such multimorphemic forms encode more information on the word-internal level verbs and often come with high average surprisal values (e.g. *supersaturate, undiluted, decolorised, recrystallizable*).

**References:** Degaetano-Ortlieb, S., Teich, E. (2017). Modelling Intra-textual Variation with Entropy and Surprisal: Topical vs. Stylistic patterns. In *Proceedings of LATECH'17*, ACL, Vancouver, 68–77. • Fischer, S., Knappen, J., Menzel, K., Teich, E. (2020). The Royal Society Corpus 6.0: Providing 300+ Years of Scientific Writing for Humanistic Study. In *Proceedings of LREC'20*, Marseille, ELRA, 794–802.

# The combinatorics of the Romanian periphrasis
## *a fi pe cale* litt. 'to be on way' with change of state verbs and its aspectual readings

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This study highlights the relation between event structure, degree scales, telicity and stage structure (C. & N. 2005) and shows how these parameters contribute to the calculus of the three aspectual values of the Romanian periphrasis *a fi pe cale* (litt. 'to be on way'), namely the progressive (Bertinetto 2000), the proximative and the avertive (Kuteva 1998), when occurring with *degree achievements*. Our data set is extracted from *roTenTen16* (https://www.sketchengine.eu/rotenten-romanian-corpus/). The aim of this presentation is twofold: (i) first, we discuss variable telicity of degree achievements (e.g. *a se liniști* 'calm'); the modifier *oarecum* 'somehow' in (1) illustrates an open [+intensity] activity predicate, i.e. atelic interpretation, whereas its substitution by 'considerably' brings a telic interpretation; (ii) secondly, we discuss similar atelic readings of verbs that generaly occur as atomic telic predicates (e.g. *a exploda* 'explode'), cf. (2).

(1)  **Eram**       **pe**   **cale**   **să**   mă    **liniștesc**   <u>oarecum</u>,
be.IPFV.1SG    on     way    SBJV    REFL   calm.SBJV.1    somehow
când    lucrurile    s-au                încurcat        și
when    things.DEF    REFL-have.PRF.3PL    messed up       even
mai      tare.                                            (3879, roTenTen16)
more     strong
'I was just calming down somehow when things got even more confusing.'                                                   (avertive aspect)

(2)  Beatlemania    **era**          **pe**   **cale**   **să**   **explodeze**
beatlemania.DEF   be.IPFV.3SG    on     way    SBJV    explode.SBJV.3SG
în America.                                              (346, roTenTen16)
in America.DEF
'Beatlemania was exploding in America.'                 (progressive aspect)

**References:** Bertinetto, P. M. (2000). The progressive in Romance, as compared with English. In Östen Dahl (ed.), *Tense and Aspect in the language of Europe* (pp. 559–664). Berlin/New York: Mouton de Gruyter. • Caudal, P. & Nicolas, D. (2005). Types of Degrees and Types of Event Structures. In C. Maienborn and A. Wöllstein (eds.). *Event Arguments: Foundations and Applications* (pp. 277–300). Tübingen: Niemeyer. • Kuteva, T. (1998). On identifying an evasive gram: action narrowly averted. *Studies in Language*, 22 (1), 113-160.

# AG 5

## Visual communication. New theoretical and empirical developments

Cornelia Ebert, Clemens Steiner-Mayr & Markus Steinbach

# Multimodal deixis and semiotic complexity: Processes of code manifestation and code integration

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Since gesture is an important way of directing the addressee's attention in relation to the visible context of the utterance, it has a central role in deixis (e.g., Bühler 1982 [1934], Fricke 2002, 2007, Kita 2003, Stukenbrock 2015). Pointing gestures as well as their equivalents are context-dependent by definition. Consequently, their use also reflects the specific media conditions of the respective utterance situation. The potential for a comparative perspective on multimodality is demonstrated by analyses of abstract deictic relations that can manifest themselves, for example, in gesture-speech ensembles, language-image ensembles as well as in multimodal video sequences. In order to capture the interplay between different semiotic resources, this approach assumes two basic processes to be at the core of the definition of linguistic multimodality: code integration and code manifestation (Fricke 2012, 2021). Both processes are substantiated by theoretical as well as by empirical arguments. As an outlook to the ViCom priority program, this keynote will demonstrate in which ways different media settings can be used in order to test the theoretical approach that has been developed in Fricke (2002, 2007, 2014) and, if necessary, how to further modify it in a way that extended forms of deictic complexity can be captured.

**References:** Bühler, K. (1982 [= 1934]): *Sprachtheorie. Die Darstellungsfunktion der Sprache*. • Fricke, E. (2002): Origo, pointing, and speech: The impact of co-speech gestures on linguistic deixis theory. *Gesture*, 2(2). 207–226. • Fricke, E. (2007): *Origo, Geste und Raum: Lokaldeixis im Deutschen*. • Fricke, E. (2012): *Grammatik multimodal: Wie Wörter und Gesten zusammenwirken*. • Fricke, E. (2014): Deixis, gesture, and embodiment from a linguistic point of view. In: C. Müller et al. (eds.), *Body – Language – Communication*. (HSK 38.2). 1803–1823. • Fricke, E. (2021): Multimodality and Semiotic Complexity from a Linguistic Point of View: Processes of Code Integration and Code Manifestation. *OBST* 99. 57–86. • Kita, S. (ed.) (2003): Pointing: Where Language, Culture, and Cognition Meet. • Stukenbrock, A, (2015): *Deixis in der Face-to-Face-Interaktion*.

# Iconicity – embodiment – image schemas
# Towards a spectrum of different degrees of gesturally enacted schematicity

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This paper suggests that through combining Peirce's semiotic theory with concepts central to cognitive linguistics one may distinguish between distinct, yet typically interacting, sources and levels of iconicity in gesture. Peirce's semiotics and cognitive linguistics share premises concerning the fundamental role of patterns of experience and sign use (Mittelberg 2019a). I present a first version of a spectrum of modality-specific manifestations of iconicity that ranges from gestures metonymically derived from physical actions and interactions with the material and social environment to diagrammatic iconicity and highly schematic gestural patterns predominantly motivated by embodied schemata and conceptual construal (Mittelberg 2018).

Including image-schematic structures accounts for the fact that gestures often only consist of evanescent, metonymically reduced hand configurations, motion onsets or movement traces that suggest, for instance, the idea of a PATH, CONTAINMENT, or RESISTANCE (e.g., Mittelberg 2019b). Examples of the different gestural patterns are enriched by motion-capture data stemming from American English and German multimodal discourse. It will thus be shown how numeric kinetic data make it possible to visualize otherwise invisible movement traces and thus provide augmented 3D insights into the dynamic, gestalt-like nature of bodily enacted icons exhibiting various degrees of schematicity. This paper hopes to spur a discussion on how both visual and invisible – yet inferable and signifying – elements provide iconic structure and meaning in dynamic multimodal fabrics of visual communication.

**References:** Mittelberg, I. (2018): Gestures as image schemas and force gestalts. *Cognitive Semiotics* 11 (1), 20180002. • Mittelberg, I. (2019a): Peirce's universal categories: On their potential for gesture theory and multimodal analysis. *Semiotica* 228, 193–222. • Mittelberg, I. (2019b): Visuo-kinetic signs are inherently metonymic: How embodied metonymy motivates forms, functions, and schematic patterns in gesture. *Frontiers in Psychology*.

# Ecologically adaptive multimodal practice: Varieties of gestural and verbal conduct in recipient designed spatial reference

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Successful reference requires the coordination of the speaker's actions with the bodily alignment and the gaze of the recipient and their displays of understanding (Stukenbrock 2015, 2020). Spatial reference is joint action and therefore must be recipient-designed. In my paper I will show how the multimodal design of spatial reference is adapted to the receptive and epistemic capacities of the recipient in the situation at hand. Drawing on a corpus of 45 hours of video-recordings of practical driving lessons in German, I show that spatial reference is designed in quite different ways and uses different multimodal resources depending on where the referential target is located with respect to the recipient. The object of study are spatial references which instructors produce for students in the context of instructions (e.g. to look into the interior mirror, to monitor traffic coming from the right, to check the blindspot). Depending on the spatial location of the target in relation to the spatial position of the driver, instructors use different modal resources (pointing, knocking, deictic verbal reference, phrasal or (complex) clausal references). In addition to the spatial alignment of instructor, driver, and referential object, the epistemic status of the driver is crucial, i.e. their knowledge about probably relevant referential objects and their categorization.

The study shows how recipient-design is a source of the situated adaptativity of referential practices in social interaction. flexibly taking into account the specific situated contingencies of the local ecology, the spatial alignment of the participants and the sensorial and epistemic receptive capacities of the recipient.

**References:** Stukenbrock A. (2015). *Deixis in der face-to-face-Interaktion*. De Gruyter. • Stukenbrock, A. (2020). Deixis, Meta-Perceptive Gaze Practices, and the Interactional Achievement of Joint Attention. *Frontiers in Psychology*, 11: 1779.

# Arbitrary mapping and object frequency

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That a car is named *Auto* and an airplane *Flugzeug* seems arbitrary. There are, however, differences in the use of these expressions that correspond to object frequency. The aim of this talk is to argue that visual perception of particular objects (in particular how often they occur) and grammatical properties of nouns referring to these objects correlate.

Gregorova et al. (2021) investigated the recognition times for objects and the words that name them. They found, for instance, that matching airplanes and the word *Flugzeug* 'airplane' is faster than matching cars and the word *Auto* 'car'. And, they suggest that this phenomenon is related to the frequency of the respective objects in our world. Their surprising finding is: Low object frequency seems to enhance recognition times.

Our main question is: could this finding relate in any way to semantic theory? And, in particular, what does it mean for the lexical entries for *Flugzeug* and *Auto*? We discuss kind and property readings for both nouns and try to defend a property reading for *Auto* that may be shifted to a kind reading. If *Flugzeug* were ambiguous between a kind and a property reading, picking the kind reading (that is less complex) could be faster and more preferred. Evidence for the ambiguity hypothesis comes from the use of these nouns in weak definites and in constructions of nominal modification among others.

Carlson (2010) rejected the idea to relate frequencies of any kind to the discussion of types of nouns. But if we related the difference between kind and property denotation to recognition times for the object and words and to *low object frequency* or maybe minimal differences between how the objects look, the famous difference between *Coke bottle* and *green bottle* is explained. Coke bottles are a well-established kind because there is a type specimen and there are less instances in the actual world. Differences in visual perception of objects seem crucial for establishing a kind.

References: Carlson, G. (2010): Generics and concepts. Rochester, ms, 18 pages. • Gregorova et al. (2021): Access to meaning from visual input. Object and word frequency effects in categorization behavior. Frankfurt, ms, 44 pages.

# Beat-related face emoji in multimodal written communication

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Facial expressions (e.g. Fernández-Dols & Russell 2017) can overlap with speech. Recent theoretical semantics research argues that disgusted facial expressions interact with accompanying speech in non-trivial ways. When a disgusted expression accompanies an entire utterance, (1a), we typically draw a *global scope* inference, (1b), see Schlenker (2018:344). If the facial expression overlaps with only part of the utterance, (2a), we rather draw a *local scope* inference, (2b), see Schlenker (2018:314).

(1) a.   DISGUST**[None of my friends goes skiing with his parents.]**
   b.   ↝ I find it disgusting [that none of my friends does this].

(2) a.   None of my friends goes DISGUST**[skiing with his parents.]**
   b.   ↝ [To go skiing with one's parents] would be disgusting.

Text-accompanying face emoji (e.g. Gawne & McCulloch 2019) are more restricted, since emoji are linearized in the same modality as the text. We argue that beat-related face emoji, (3a), provide a means to circumvent linearization and mimic simultaneity. While message-final face emoji ('They might think I like them 🤢') favor a global scope reading, (3b), beat-related face emoji make local scope accessible, (3c).

(3) a.  I keep accidentally reacting to ppls IG stories.
     They might think I    like    them      [twitter example]
   b. *global scope:* [That they think I might like them] is disgusting.
   c. *local scope:* [For me to like them] would be disgusting.

We conclude that repetition is an innovated visual communication device that facilitates multimodal communication in a digital written medium.

**References:** Fernández-Dols, J.-M. & J. Russell (eds.) (2017): *The Science of Facial Expression*. OUP. • Gawne, L. & G. McCulloch (2019): Emoji as Digital Gestures. In: *Language@Internet*. • Schlenker, P. (2018): Gesture projection and cosupposi-tions. In: *Linguistics and Philosophy* 41, 295–365.

# Communicating with the eyebrows. A corpus-based study of facial articulation in interviews with David Letterman

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Eyebrows are important articulators that convey various types of information (e.g. attitudes and emotions) in both spoken and sign languages (e.g. Ekman 1992, Kimmelmann 2020). While there is a substantial amount of literature on the "psychology of facial expressions", the "semantics of facial expressions" (in spoken languages) are still more poorly understood (Wierzbicka 2000). In this study I use multi-modal corpus data to identify correlations between eyebrow gestures and the occurrence of lexical items reflecting specific communicative functions in late night show interviews.

The corpus consists of a collection of episodes of the Late Show with David Letterman ($\approx$ 160 hrs.). It has been automatically annotated for pitch, (sagittal and lateral) head position and eyebrow position (relative to other facial landmarks), using 3D facial landmark recognition (Bulat & Tzimiropoulos 2017). Transcriptions were retrieved from subtitles.

The focus of this study is on three types of meaning, i.e. indicators of illocutionary force, modal auxiliaries and elements reflecting information structure. While preliminary results seem to confirm some of the observations made and expectations expressed in earlier studies (e.g. Wierzbicka 2000, Flecha-García 2010), the role of pitch and other non-manual gestures, in particular head nods and tilts, also needs to be taken into account. In my talk I will present the results of an analysis based on multivariate statistical techniques, intending to capture the inter-dependencies between the three types of variables (meaning, intonation, facial gestures).

**References:** Bulat, A. & G. Tzimiropoulos (2017): How far are we from solving the 2D & 3D Face Alignment problem? (and a dataset of 230,000 3D facial landmarks)". *ICCV 2017*.1: 1021–1030. • Ekman, P. (1992): An argument for basic emotions. *Psychological Review* 6.3/4: 169–200. • Flecha-García, M.L. (2010): Eyebrow raising in dialogue: Discourse structure, utterance function, and pitch accents. *Speech Communication* 52.6: 542–554. • Kimmelmann, V., A. Imashev, M. Mukushev & A. Sandygulova (2020): Eyebrow position in grammatical and emotional expressions in Kazakh-Russian Sign Language: A quantitative study. *PlosOne* 15.6:e0233731. • Wierzbicka, A. (2000): The semantics of human facial expressions. *Pragmatics & Cognition* 8.1: 147–183.

# The role of visual articulatory vs. gestural cues in audiovisual lexical stress perception

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In some languages (e.g., English) lexical stress helps resolve lexical competition and faciliate online word recognition (Cutler & Van Donselaar, 2001). It is expressed auditorily but also visually: participants can determine the position of lexical stress from seeing muted videos of a talker's face (Jesse & McQueen, 2014). Moreover, beat gestures make participants perceive lexical stress on the syllable the gesture is aligned to (Bosker & Peeters, 2021). This study tested how listeners weigh these different cues when combined in more naturalistic audiovisual (AV) speech perception. We recorded seven Dutch disyllabic lexical stress minimal pairs (e.g., VOORnaam vs. voorNAAM ) and interpolated the F0 contours to create 7-step lexical stress continua (syllable intensity and duration kept constant). The continua were combined with videos of the talker producing either member of each pair. In Experiment 1, 48 native Dutch participants were presented with these AV stimuli, A-only continua, and V-only videos and indicated what word the talker said. In Experiment 2, we added beat gestures by replacing the lower part of the videos with videos of the talker producing beat gestures on either the first or second syllable. Generalized linear mixed effects models revealed that articulatory cues on the face, although visible, did not affect audiovisual stress perception, while the beat gestures did. Thus, beat gestures contribute more to audiovisual lexical stress perception than facial cues to articulation. Therefore, speech perception is best considered in its natural multimodal setting.

**References:** Bosker, H.R., Peeters, D. (2021): Beat gestures influence which speech sounds you hear. *Proc. Royal Soc. B*, 288(1943), 20202419. • Cutler, A., Van Donselaar, W. (2001): Voornaam is not (really) a Homophone: Lexical Prosody and Lexical Access in Dutch. *Lang Speech*, 44(2), 171–195. • Jesse, A., McQueen, J. M. (2014): Suprasegmental Lexical Stress Cues in Visual Speech can Guide Spoken-Word Recognition. *Q J Exp Psychol*, 67(4), 793–808.

## Analyzing the *throwing away* gesture as a common ground management device

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We argue that the *throwing away* gesture (THROW) should be analyzed as a common ground management device. This gesture, which consists of a single downward flap of a raised hand at the wrist, has been described by Bressem & Müller (2014, 2017) as a negative assessment marker; they argue that it belongs to a family of gestures that metaphorically clear unwanted material from one's environment. We show that THROW crucially conveys dismissal (as opposed to, e.g., disapproval or disgust). This is demonstrated in (1), where THROW is compatible with B's dismissal of A's worry in (1B) but incompatible with the a-rmation of that worry in (1B').

(1)  A:  Ack! I think I forgot to pay my credit card bill.

B:  It'll be fine<sub>THROW</sub>

B':  That's not good<sub>#THROW</sub>

We also show that THROW behaves uniformly regadless of what kind of spoken content (if any) it accompanies; from this, we conclude that THROW encodes a separate illocutionary act that is interpreted in conjunction with that associated with a co-occurring utterance. We propose a formal analysis of THROW based on previous approaches to common ground management devices (e.g., Repp 2013), and demonstrate that THROW exhibits behaviours characteristic of such operators. We argue that THROW signals that the issue addressed by a previous utterance is not worth talking about. In (1), THROW conveys that B considers the question of whether A forgot to pay their credit card bill to be unimportant; this is compatible with the spoken material in (1B) but not (1B').

**References**: Bressem, J., & C. Müller. (2014): The family of Away gestures: Negation, refusal, and negative assessment. In *Body - Language_- Communication* (HSK 38.2), 1592-1604. • Bressem, J., & C. Müller. (2017): The "Negative-Assessment-Construction": A multimodal pattern based on recurrent gesture? *Linguistic Vanguard* 3, 20160053. • Repp, S. (2013): Common ground management: Modal particles, illocutionary negation and VERUM. In *Beyond Expressives*, 231-274.

# Can detection of extraneous visual signals reveal the syntactic structure of sign language?

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Linguistic research indicates that sentences are organised into hierarchical constituents independently of the modality of use (i.e. speech or sign; see Cecchetto, 2017; Friederici et al., 2017). Here, we present the first adaptation of the classical psycholinguistic "click" paradigm (e.g., Holmes & Forster, 1970) to the visuo-spatial modality. Using white flashes (duration: 80 ms) overlayed on videos of German Sign Language (DGS) sentences, we probe whether deaf signers automatically attribute constituent structure onto sequences of signs during comprehension. We present participants complex sentences auch as (1):

brow-raise

(1) IF $POSS_1$ SISTER WITH $POSS_3$ CHILD++ TOMORROW MORNING $_3VISIT_1$ /

head-nod

$IX_1$ HAVE-TO HOUSE CLEAN

White flashes ("/") may occur as overlays to the videos at different positions in the sentence (i.e. major, minor, or not at a constituent break). Participants are asked to respond as fast as possible to flashes via button press and to answer comprehension questions. Data collection is still ongoing at the time of writing. We expect to observe reaction times to be modulated by the position of flashes in the constituent structure. This would provide psycholinguistic evidence for the modality-independence of the cognitive mechanisms underlying syntactic processing.

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# Palm-up and throw-away gestures in Polish, German and Russian Sign Language – A corpus-based study

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This paper focuses on the study of the 'palm-up' and the 'throw-away' - two manual elements, present both in spoken languages (SpLs) and sign languages (SLs). 'Palm-up' is a multifunctional manual activity taking the form of rotating one's forearms so that the palms of the hand face upward (e.g. Cooperrider et al., 2018), which plays a variety of roles in all languages it occurs in. 'Throw-away' is a gesture in which an open hand is going downward and has a common meaning of "never mind" or "not important" (Bressem & Müller, 2014).

The main aim of the present study is to investigate the occurrence of these manual elements in naturalistic data drawn from the corpora of the three SLs: Polish (PJM), German (DGS) and Russian (RSL) and to compare their frequency, functions and usage patterns across these SLs.

The preliminary analyses (based on annotations of video material coming from 9 deaf signers and lasting approx. 2 h and 45 mins) show that the roles of the two manual activities in all three SLs can be grouped into four main functions: expression of (similar) modal meanings (e.g. lack of knowledge, hesitation, negation agreement); regulating the discourse (e.g. connecting sentences, backchannel); conveying coherence (e.g. meta-comment, rhetorical questions) (e.g. McKee & Wallingford, 2011); and carrying lexical meanings. The first three functions and their detailed meanings in three SLs are very similar both to each other and to cospeech gesture. The last function however is unique to SLs. The findings support the view of manual activities as forming a continuum along which functional conventionalization and lexicalization take place.

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# Looking at place of articulation as a first approach to identifying metaphors of German Sign Language in the domain of *cognition*

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The present study aims at the detection and systematic description of metaphors of German Sign Language (DGS) in the domain *cognition* via the *metaphorical* as well as the *iconic mapping* realized by the place of articulation (PoA) using corpus data. Metaphors in spoken languages are conveyed by a unidirectional metaphorical mapping from *source* to *target domain* (Dancygier & Sweetser 2014). Metaphorical signs feature an additional iconic mapping – thus called a *double mapping* – realized by either a physical depiction of the object or action (Taub 2001) or the PoA (Rosenstock 2006; Zeshan & Palfreyman 2019). Research by Kimmelman et al. (2017) supports the suggestion of iconic metaphorical signs especially in the domains *cognition* and *emotion*.

In a pilot study, a first sample of metaphors was compiled by reviewing signs of *cognition* in the public DGS Corpus (Konrad et al. 2020) with the head as PoA and checking for a metaphorical mapping. This sample includes signs that match common conceptual metaphors. In the main study, a two-step analysis will be conducted to identify metaphorical signs: (i) using the HamNoSys (Hanke 2004) search function in the DGS Corpus, (ii) testing for a double mapping. The expanded sample will then be discussed with experts in a semi-structured interview.

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# Dynamic iconicity

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Dynamic semantics provides a mechanism by which information and discourse referents are introduced gradually into context as a discourse unfolds. Dynamic semantics involves left-to-right evaluation: discourse referents must be introduced before they can be accessed, as shown in (1). Anaphoric relations also depend on the local contexts introduced by logical operators; in (2), for example, pronominal reference is possible only within the local context under *Nobody*.

(1)     Left-to-right evaluation

    a.    $John_i$ entered the room. $He_i$ began to sing.

    b.  * $He_i$ began to sing. $John_i$ entered the room.

(2)     Sensitivity to local contexts

    a.    Nobody received [a prize]$_i$ and bragged about it$_i$.

    b.  * Nobody received [a prize]$_i$ . It$_i$ was made of gold.

Here, I argue that a similar dynamic system governs the iconic use of space in sign language. Intuitively, one must create a picture before one can point to it. This dynamic iconic system runs parallel to the grammatical system, but interfaces with it, with interpretation similarly modulated by local contexts. I discuss the interaction of "dynamic iconicity" with a number of phenomena in sign language, including disjunction, cataphora, and embedded indefinites.

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## Face emojis as use-conditional pictures 🤭

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Face emojis have been analyzed semantically as expressives (Grosz et al. 2021). This means they are treated on a par with words like *ouch*, *oops*, *fucking*, and *thanks*, as expressing something non-truth-conditional, like the speaker's emotional state. Such a view overlooks the fact that emojis are in fact not words but pictures, and as such should have an iconic, pictorial semantics.

I propose and defend a thoroughly pictorial semantics for face emojis. In short, this paper argues that emojis, like drawings, photographs, and gifs, iconically convey information about 'what the world looks like'. More specifically, focusing on emojis that depict facial expressions and hand gestures I propose a Kaplan-style framework for use-conditional content in which they depict (in a highly stylized way) what the utterance context looks like. I then derive the intuition that face emojis function as expressives from the assumption that the actual human facial expressions (or hand gestures) depicted are themselves expressive gestures.

The pictorial account has a number of benefits over the lexicalized expressive account championed by Grosz et al.:

(i)   it naturally predicts creative emoji usages, like 😖 indicating a host of psychologically unrelated but outwardly similarly looking states, from physical exertion to helplessness.

(ii)  it can explain the rise of skin-tone specific emoji variants, like 👍 and 👍, which for the lexicalist seem to be superfluous synonyms of 👍, expressing that the speaker is giving approval.

(iii) it readily extends to the use of other pictorial elements in text messages, like emoticons, object emojis, and animated gifs, as the framework is continuous with existing semantic accounts of multimodal text–image combinations like comics.

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# Word learning with visual animations as a window into the Triggering Problem for presuppositions

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The paper introduces a new methodology using a word learning task with visual animations to approach the triggering problem for presuppositions, which is the long-standing theoretical issue of which entailments of natural language expressions end up presupposed. Recent literature discusses the need of an algorithm do determine what parts of meanings become presuppositions, that is an explicit rule that predicts a trivalent output (T,F, #) of a bivalent input (T, F) (Abrusan 2011, Schlenker 2021). Earlier arguments involving iconic presupposition triggers suggest that presuppositions are generated productively from iconic expressions, which could not encode the presupposition conventionally (Schlenker 2019, Tieu 2019, Schlenker 2021). We present a pilot experiment using a word learning task with a change of state verb to argue for the success of the methodology in displaying productive lexical triggering in action. Our data show that, in line with most theories on triggering mechanisms with change of state verbs (Abusch 2010, Abrusan 2011, Schlenker 2021), the initial state is treated as a presupposition. This is evidenced by the behaviour under negation, but also by the fact that training against the predictions of triggering algorithms is less effective than training for it. This last finding is a novel finding, revealing that training with visual communication can effectively be used to answer theoretical questions regarding the triggering problem. We identified a new measure for testing presupposition algorithms, which is training with visual animations that goes against their default outputs.

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## From performatives to performances

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Some demonstration-based content (in the broad sense of Davidson 2015) can be compositionally integrated into larger utterances as properties of individuals or events of the form 'such that it resembles "DEMONSTRATION"'. I propose that we also regularly make use of a general mechanism of turning performative expression of (affective, social, ritualistic, etc.) non-truth-conditional meaning into demonstrations of such expression within pieces of truth-conditional content of the general form 'such that it would make me/one go "DEMONSTRATION"', which we can then combine as modifiers or supplements with other truth-conditional content. I show that this mechanism of going "from performatives to performances" emerges for meaning–form mappings of varied conventionalization status and for various types of forms, and offer a formal analysis that builds on Potts 2007, but more radically separates performative context-altering effects of uttering a given expression from its compositional meaning contribution.

  I show how this mechanism works, a.o., for affective degree modification via fully lexicalized spoken morphemes, (face and non-face) gesture, and/or prosody, as in (1); supplement-like uses of affect-conveying gesture and/or prosody, as in (2); embedding interjections, as in (3), etc.

(1)  The problem with doing this with vodka is you get drunker faster.
     The problem with doing this while you're sick and drinking vodka is

     you get drunker  faster.        (youtu.be/LhRWwMHiroE?t=1388)

(2)  I don't have  friends.        ('Sherlock', BBC, S2E2)

(3)  Cool that you have deer, yuck that they poop.        (Zyman 2018)

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# Mathematics as a handicraft – Gesture and action use of young learners while working on diagrams

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The poster includes a semiotic approach on mathematical learning as using diagrams (e.g., Peirce, 1976, NEM IV). An example of the longitudinal designed erStMaL-project is analysed (early Steps in Mathematics Learning, n = 144 kindergartners; IDeA-Centre, Frankfurt/Main): Four kindergarteners are occupied with a huge set of wooden animal figures in different sizes, forms, and colours, which can be e.g., sorted, counted or used to generate patterns (Billion, Huth, Möller, 2020). The poster's focus of research includes the diagrammatic interpretations of the interactants in their actions and gestures (e.g., Vogel & Huth, 2020). Additionally, differences in the diagrammatic interpretations according to the mathematical relations expressed in actions and gestures are investigated (e.g., Billion, 2021). As one result of the qualitative semiotic analyses it can be shown that gesturally expressed diagrammatic manipulations are used as an impulse to act on the diagram of wooden animals in interaction. This gestural action-plan leads to a different mathematical interpretation according to the mathematical relations which are focussed: from cardinality to the question of relation of order and size.

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# Raising both eyebrows as visual change-of-state marker in social interaction

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This paper deepens previous insights on the conversational impact of the raising of both eyebrows (RBE) as *facial gesture* (e.g. Bavelas & Chovil 2018, Ambrazaitis & House 2017) by looking at it as a practice that appears as (part of) a bodily acknowledgement practice while being addressed by a speaker or as (part of) a response. Here, the RBE signals news receipt or operates as news-mark displaying a changed state of mind (e.g. Heritage 1984, Golato 2012) facing new information and discloses a gradual distinction between recipiency and responsiveness when receiving new information. Working within the framework of CA, IL and Multimodal Interaction Analysis, we show how both the temporal synchronization of the RBE with speech/other bodily resources and its internal unfolding shapes the producers' actions and the further trajectory of talk. Being used as *facial change of state marker*, two temporal patterns of the RBE come into play: A continuous moving of the eyebrows can be used for both signaling news receipt and for assessing new information. In contrast, the holding of raised eyebrows displays astonishment or surprise. The study contributes to CA research on respondings to new information and on recipient actions. The analysis is based on videotaped data of naturally occurring dyadic and multiparty conversations in standard German (a games evening, a dinner-cooking event and a car ride).

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## The communicating face: Comparing expressive facial behavior in response to imitation or verbal instruction

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Emotional facial expressions are vital in face-to-face interactions and interact with verbal exchanges. A classical view on emotion processing holds that emotions are innate, universal and distinct states (Ekman & Friesen, 1971). To measure the time course of the expression of basic emotions, we compared the development of expression by registering the expression with a 3D camera in a stimulus-locked manner and classfied the emotional expression for each time frame using AI technology. Participants had to imitate the expression in response to the display of a face with a particular emotional expression (e.g. happy face) or produce the expression in response to a visually presented word (e.g. "happy"). We assumed that the imitation task in comparison to the verbal task should lead to a faster onset of emotional expression and to higher classification rates of the employed algorithm (apex). Our hypotheses were confirmed for the conditions happy and fearful with a higher apex and a faster onset if emotional expressions had to be imitated. Our hypotheses were only partly confirmed and the classification rates differed strongly between expressions. These results will be discussed in light of more novel approaches on emotion stressing the context dependent, acquired nature of emotions and assuming its mediation by abstract semantic-conceptual verbal information (Fugate, Gouzoules, & Barrett, 2010). The method can be applied in conceptual-semantic priming experiments and within a cross-cultural context (Dobel et al., 2019).

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# Visual effects from facial information to voice perception in normal hearing individuals and cochlear implant users

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Recent research has demonstrated influences of visual facial information to vocal emotion recognition (VER). Here we considered the role of visual information in normal hearing (NH) individuals and in individuals with cochlear implants (CIs) – hearing prostheses designed to functionally replace damaged parts of the inner ear. Importantly, recent research suggests that the ability to perceive emotional communicative cues is highly relevant for CI users´ quality of life (e.g., von Eiff et al., in press). In Experiment 1, 26 adult CI users (17 female, $M_{age} =$ 55.7 years) and 26 NH listeners (17 female, $M_{age} =$ 55.5 years) perceived vocal emotions (angry vs. surprised) for phonetically balanced two-syllable pseudowords that were either presented auditory-only, or were combined with time-synchronized videos of speaking faces with either congruent or incongruent facial emotional expressions. Performance in both groups benefitted from congruent facial expressions, but this visual benefit was much stronger in CI users than NH listeners. In Experiment 2 (25 adult CI users, 15 female, $M_{age} =$ 50.4 years; 25 NH listeners, 15 female, $M_{age} =$ 50.3 years), we used adaptive testing to equate performance levels between groups, employing a voice morphing approach that varied the degree of emotion-diagnostic information in the voice. Importantly, Experiment 2 replicated a larger influence of visual information to VER in CI users even when accounting for auditory-only performance differences. Overall, congruent visual facial information causes large benefits to vocal emotion perception in CI users. We discuss implications for future basic research as well as perceptual training programs, to improve communication, and ultimately life quality, in CI users.

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## "Gestures are good, because they tell you what's coming." Classroom-based empirical studies on gesture and second language word learning

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It is easily recognised that human face-to-face interaction includes exchanging eye contact, body posture and hand gestures, however this knowledge has not easily translated into including these elements in improved teaching (Arndt & Sambanis, 2017). For about one third of Germany's children and adolescents, the language of instruction is not their first or only first language (Bryant & Rinker, 2021). Especially here the need to understand more about L2 acquisition and strategies which support L2 learning in school settings is pressing.

In this talk, we discuss research for teaching English at both the primary and secondary school level. The three experiments highlighted here pursue the larger aim of transferring findings from psychology and neuroscience to evidence-based English language teaching. In addition, all experiments focus on word learning in linguistically diverse groups. The first ($N = 85$) is on learning in grade 6 for 20 science terms through performing gestures or reading animated word clips (Bitmann, 2020: 239). The second ($N = 59$), on learning unfamiliar words needed for Abitur qualifications in four learning conditions, one of which was performing a gesture for each word (Schilitz, 2018: 250). And finally, again with primary school-age students, the third experiment ($N = 76$) investigates word learning for six spatial terms by either pairing a gesture with every morpheme of a text or by learning the same text through reading and sentence-level gestures (Janzen Ulbricht, 2020).

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# Multimodal communication: The impact of an instructor's eye gaze on cognitive performance in a spoken question-answer interaction

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Awareness of an interlocutor's gaze behaviour affects language comprehension, production and indeed the entire interaction, but studies investing their interplay pose both theoretical and practical challenges. We present two experiments investigating the role of a speaker's eye gaze during a question-answer interaction and its impact on the cognitive performance of the listener (cf. Falck-Ytter et al., 2015). Participants were presented with videos of a female speaker either looking at the camera (direct gaze) or not (averted gaze) while phrasing a problem, which they then had to solve and respond to verbally.

Experiment 1 used three different cognitive tasks (digit span [DS], arithmetic and verbal analogies), but found no clear effects of speaker eye gaze on listener accuracy or response times, perhaps due to a high level of cognitive load. Experiment 2 therefore manipulated task difficulty within participants by presenting a mixed set of easy (DS = 5), moderate (DS = 6), and difficult (DS = 7) problems. Importantly, performance in the averted gaze condition was significantly lower than when the speaker appeared to fixate the participant directly. Follow-up studies are planned using eyetracking and testing the generalisability of these results both in the lab and online, hopefully providing insight into how visual cues and linguistic content are integrated in multimodal real-life communication.

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# AG 6

## Optionality and non-optionality of syntactic movement

Anke Himmelreich & Johannes Mursell

# On the optionality of local order-preserving displacement

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In an approach to syntax where all operations must be triggered by designated features, there can be no optional movement in the strict sense; rather, apparently optional movement is analyzed as obligatory movement taking place in the presence of movement-triggering features which are only optionally present. In line with this, these kinds of movement can typically be shown to have semantic or information-structural effects.

Against this background, I will argue that there are some displacement operations in the syntax of German which are optional in the sense that they are not triggered by designated features bringing about movement, viz.: (i) so-called pseudo-scrambling in the third construction (Geilfuss (1991)); (ii) fronting in complex prefield constructions (Fanselow (1993), Mueller, St. (2015), Speyer (2008), Frey (2017)); and (iii) argument scrambling across locative adverbials (Lenerz (1977), Suchsland (1993)). These displacement operations are always extremely local; and if they apply to more than one item, they are also inherently order-preserving. Consequently, one might initially be tempted to assume that no displacement has taken place at all in the derivation of the surface orders. However, there is clear evidence that displacement has in fact occurred, based on evidence from, inter alia, freezing effects, quantifier scope, bound variable binding, negative polarity licensing, and idiomatic readings.

The analysis I want to propose for these extremely local displacements relies on the concept of structure removal in these contexts (Mueller (2017, 2019), Pesetsky (2019), also cf. Ross (1967)): An XP shell is removed in the course of the derivation (triggered by designated removal features that are optionally present in some cases, possibly obligatorily so in others), and remaining material in the original specifier and complement domains of this XP projection is reassociated with the next-higher domain, in an order-preserving way, yielding displacement without movement.

# A universal supergrammar of neutral word order accounts for U20, FOFC, the HMC, and more

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Different languages are assumed to have different grammars, which map base structures to unique surface structures. I propose an alternative: a universal "supergrammar" maps base structures to typologically possible neutral surface structures. Implementing the proposal as a universal parser (Medeiros 2018), stack-sorting transforms surface orders into head-complement-specifier base order, read by a shift-reduce interpreter building underlying phrase structure. Both the stack-sorting algorithm and the shift-reduce interpreter are language-invariant. Some orders cannot be parsed this way, explaining a range of word order universals. If demonstratives, numerals, and adjectives are specifiers above nouns, their head-comp-spec base order is $[[[[N]\text{-}AdjP]\text{-}NumP]\text{-}DemP]$; its stack-sortable permutations are the 14 attested orders described by Cinque (2005). With nested head-complement structure, the base order is $Head_1\text{-}[Head_2\text{-}Complement_2]$; the forbidden surface order is $*Head_2\text{-}Complement_2\text{-}Head_1$. This derives all major cases of the Final-Over-Final Condition (Sheehan *et al* 2017). We derive a variant of the Head Movement Constraint (Travis 1984) covering core cases like (V-to-)T(-to-C) movement, including impenetrability of the head cluster, while allowing attested long head movement obeying a novel generalization. We also allow Affix Hopping (Chomsky 1957), and Germanic cross-serial subject-verb dependencies (Bresnan *et al* 1982).

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# A case of pseudo-optionality resulted from language contact

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**Background:** The optional movement becomes problematic in the Minimalist Program (Chomsky 1995) in that MP requires syntactic operations to be obligatory, satisfying the Strong Minimalist Thesis.

**Central claim:** This paper presents a new type of pseudo-optionality in that two overtly realized 'copies' exist in a sentence but they are derivationally unrelated. We will show that they are in fact two identical occurrences directly taken from the Lexicon rather than copies created by internal Merge, and that they are both base-generated in different positions. Importantly, one of them is the result of language contact.

**Data:** (1) illustrates a case of Hangzhou dialect in Chinese. The manner adverb *kuài* 'fast' is base-generated in the post-verbal position (Jing & Wang 2021). The adverb *kuài* can also appear in the pre-verbal position, a standard expression in Mandarin, which we will argue that it is also base-generated. Importantly, two adverbs *kuài* can cooccur in both post-verbal and pre-verbal positions.

(1)  [$_{Top1}$ Tā [$_{Top2}$ fàn [$_{CP}$ [$_{TP}$ ~~tā~~  **kuài**  chī-hǎo  ~~fàn~~ **kuài**  de]]]].
        she     meal          fast   eat-PERF        fast   DE
   'She almost finishes the meal.'

**Analysis**: As will be demonstrated later, the sentence cannot be derived by syntactic operations such as internal Pair-Merge or rightward movement, which leads us to a possibility that both pre-verbal and post-verbal adverbials are base-generated, resulted from language contact. Empirical evidence shows that the number of adverbs that can appear post-verbally decreases while moving from the South to the North of the Wu dialectal area.

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# The third way: Optional object reordering as ambiguous labelling resolution

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The order of the indirect (IO) and direct object (DO) in double object constructions can freely alternate in many languages when controlled for information structure status and animacy (e.g. in Slovenian two information structure neutral objects in a ditransitive construction can appear in either order: IO>DO or DO>IO). Such alternations are usually analyzed either as optional movement of one of the objects or as distinct base generated ditransitive constructions. In this talk, I argue for a third option: both IO>DO and DO>IO are derived via movement. The IO moves from its base position in the former configuration and the VP containing the DO moves across the IO in the latter. The two movement options represent two strategies for voiding a Labeling Algorithm (Chomsky 2013, 2015) conflict that arises when an IO merges with a VP. The proposed analysis combines the insights of the object movement and base generation analyses while avoiding their respective shortcomings.

The hybrid analysis will be motivated by data from Slovenian double object constructions, focusing on passivization asymmetries that arise in relation to double object idioms, benefactive readings of ditransitives, and the choice of ditransitive predicate, where the IO>DO/DO>IO alternation crucially shows properties associated with both movement and base generation. Additionally, it will be shown that the proposed analysis can be extended beyond Slovenian, not only to other languages with a similar word order alternation, but also to the English dative alternation and languages with no alternation in ditransitives, the main idea being that cross-linguistic differences in ditransitive constructions can be reduced mostly to contextual restrictions on the realization of applicative heads along with differences in selection and case assignment.

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# Optional for who? Optional phenomena do not necessitate optional syntactic operations

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Optional *operations* in syntax are unnecessary to model optional *phenomena:* German *scrambling,* e.g., a highly optional phenomenon can, it is shown be modelled via deterministic operations.

No features have ever been identified that could trigger German scrambling deterministically. Instead, scrambling remains optional from the point of view of a *competence* grammar. Thus, if scrambling can be modelled by deterministic syntactic operations, this demonstrates that *operations* need not be optional to model optional *phenomena*.

Following Struckmeier (2017), I propose that German scrambling is caused by (at least) two completely distinct syntactic operations:

(1)  a.  internal merger of 'smaller' phrases (DP, QP, etc.) and
     b.  internal merger of 'larger' phrases (e.g., vP).

The cases in (a) are deterministically related to semantic effects. The movements in (b) are deterministically implemented via output restrictions: E.g., merging vP, a right-headed phrase in German, causes a violation of the *Final-over-final constraint*, which is obligatorily circumvented by internally merging (e.g.) vP internally. The grammatical architecture presented describes the phenomenon accurately, it is shown.

From a language acquisition perspective, optional movements and optional waivers of its restrictions would make syntax  unlearnable – an unwelcome result, given that nativist acquisition theories try to *reduce* innate syntactic knowledge since the inception of *minimalist* aims.

In sum, optional operations and optional waivers of restrictions are unnecessary and unwelcome.

**References:** Struckmeier, Volker 2017: Against information structure heads: a relational analysis of German scrambling. *Glossa* 2, 1–29.

# Extraposition in German comparatives and the optionality of rightward movement

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German attributive comparatives involving an elliptical comparative subclause may have a DP-external reading, (1), and DP-internal reading, (2). The subclause must be extraposed either to the right edge of the object DP (position 1), or into the Nachfeld, NF (position 2).

(1) Er    hat [ein größeres Haus [**als sie**]$_1$] gebaut [**als sie**]$_2$.
     he   has   a   bigger   house   as she      built   as she
     'He has built a bigger house than she has.'

(2) Du   hast [eine tollere   Frau     [**als sie**]$_1$] geheiratet [**als sie**]$_2$.
     you  have  a    greater   woman   as she      married    as she
     'You have married a greater woman than she is.'

While all options are grammatical, making extraposition to the NF optional, novel experimental results indicate that there are differences in the preferences. There is a preference for the NF position for the external reading and a preference for the DP-adjoined position for the internal reading, but not all differences are significant. The results indicate that while the DP-edge position is largely neutral, the NF is significantly worse for remnants like (2). Case-sensitive masculine remnants also show that subject remnants in (2) are assigned accusative case, as part of the object DP (the predicative clause being tenseless). If the remnant is morphologically marked as accusative, the sentence significantly ($P = 0.0056$) improves in comparison to the case-ambiguous remnant. This indicates that rightward movement is not fully optional as overt morphological marking may obviate the extraposition operation taking the DP away from the position-bound case position. These differences altogether indicate that (i) when morphological case is assigned in the morphological module, extraposition to the NF has not yet taken place, and (ii) extraposition taking place at PF is not truly optional as it is sensitive to morphological properties influencing interpretation.

# Italian past participle agreement: overt/covert A-movement

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In Standard Italian, past participles appearing in the perfect periphrases can bear overt morphological inflection for gender and number (Kayne 1989, Belletti 2017). An example can be observed in the following sentence: *le ragazze sono arrivat-e* 'the girls(pl.f) have arrived(pl.f)'. Possible controllers of participle agreement are unaccusative subjects, passive subjects, accusative clitic objects, reflexive direct or indirect objects. It is widely assumed that these items must move out of their base position via A-movement (for instance, the unaccusative DP moves to the subject position for case-related reasons). Thus, I propose that past participle agreement is the morphological reflex of successive cyclic A-movement of a DP to the edge of the phase head *v* (i.e., the head that is spelled out as a participle). The implementation makes use of *edge features* (Chomsky 2001, 2007, 2008, Müller 2010, Abels 2012). In particular, I suggest that edge features are equipped with $\phi$-probe, which is spelled out as participle agreement.

Interestingly, past participle agreement also shows up when the controlling DP apparently remains in its base position. Such an example is the following sentence: *sono arrivat-e le ragazze* 'the girls(pl.f) have arrived(pl.f)'. I propose that these in-situ cases constitute instances of covert A-movement. The DP controlling participle agreement always move to Spec,*v*, but this movement can be either overt or covert (cf. Cardinaletti 1997 for a similar proposal). Evidence for this claim comes from the following tests: (i) control of a PRO inside an adjunct clause, (ii) binding of an anaphoric pronoun, and (iii) quantifier scope interaction. Optionality about the position of the DP controlling participle agreement arises at PF: either the lowest copy or the topmost copy can be pronounced (Bobaljik 2002, Amaechi & Georgi 2020).

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## IS triggered movement: Apparent optionality?

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The interaction of information structure (IS) and syntax is discussed widely. Approaches can be roughly divided by whether or not IS notions are represented in syntax or not. On the one hand, we find cartographic approaches (e.g. Belletti 2004; Rizzi 1997) which include features and projections that express IS concepts and serve as targets of movement. On the other, approaches such as Reinhart's (1995; 2006; also Neeleman and van de Koot 2008; Titov 2019) contend that IS is not part of syntax, but a post-syntactic interface. Syntax generates structures by optional movement, and all inadequate structures are filtered out by interface constraints.

For **scrambling** in German, the relevance of several IS notions have been discussed (e.g. topichood, givenness; see e.g. Haider 2017; Struckmeier 2014). We present a novel way of integrating IS information into syntax and we explore the hypothesis in (1). According to our proposed architecture, IS properties coded as formal features can enrich syntax, making these features available for subsequent steps of the derivation. The effects of this enrichment do not, however, completely determine all aspects of information-structural interpretation. Instead, hypothesis (1) provides two main possibilities, one syntactic and one pragmatic:

(1) IS interpretations can be arrived at via syntactic marking (movement) or pragmatic reasoning.

Movement thus seems optional because an IS interpretation can be arrived at both with and without it. IS-driven movement is obligatory only once it is marked in the syntax. We explore to what extent our hypothesis in (1) and the proposed architecture lead to a more adequate description of the data as well as a neater interaction of syntax with other modules.

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# Reanalyzing (Non-)DET-Drop and (Non-)ECP in the Nominal Domain

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It is a well-known fact that DET-categories (DET=articles, demonstratives, quantifiers, etc.) are obligatory in most complex nominals of languages like English, German, Italian and the like, cf. Stowell (1991), Longobardi (1994). DET-obligatoriness in these languages famously contrasts with the optionality of DET-categories in complex nominals of many Slavic languages (Russian, Serbo-Croatian, Polish and the like). Such contrasts have been argued to be derivable from an NP-DP-parameter (Bošković 2005, 2008 *et seq*). Following work by Uriagereka (1988) and Corver (1989), Bošković argues that this parameter also underlies the availability of DET-extraction and the absence thereof: Thus, NP-languages allow Left Branch Extraction, while DP-languages are subject to an island constraint, the Left Branch Condition (cf. Ross 1986).

I suggest replacing the NP-DP-divide with a lexical parameter of the functional nominalizing head *n* (cf. Borer 2005). Adopting labeling theory (Chomsky 2013, 2015), I argue that the mentioned pattern of obligatory/optional External Merge and (dis-)allowed Internal Merge of DET-categories is deducible in a uniform fashion from a single property of the nominal categorizer: English, German and Italian feature "weak" *n*, while the mentioned Slavic languages feature "strong" *n*. This lexical difference correlates with morphological manifestations on the nouns in these languages.

Conceptual implications and consequences will be discussed, including the discarding of the DP-hypothesis and the problem of phasehood in the nominal domain. Time allowing, I will discuss extensions of this approach to languages with affixal definiteness markers like Danish and Swedish.

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## Optional NP raising in partitives

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Building on Zamparelli & Falco (2019), I argue that (1a) derives (1b) via the NP raising to the specifier of the phrase projected by *of*.

(1)  a.  two                        of John's [NP good friends]
     b.  two [NP good friends]$_i$  of John's t$_i$

I address challenges to the movement analysis from Shin (2016) by advancing the generalizations in (2).

(2)  a.  The NP can raise iff the downstairs determiner can combine with an elided NP and the outer-most spec-DP is vacant.
     b.  The NP can stay in-situ iff the upstairs determiner can combine with an elided NP with a non-relational denotation.

Unlike the raising being obligatory in Zamparelli (1998), I argue that it is optional in principle, and is made obligatory or forbidden by (2); raised (3a) and (3c) violate (2a), and non-raised (3b) and (3c) violate (2b).

(3)  a.    two of the dogs        * two dogs$_i$ of the t$_i$
     b.  * every of John's dogs     every dog$_i$ of John's t$_i$
     c.  * John's of the dogs     * John's dogs of the t$_i$

Raising is obligatory in (3b), but encoding it as always obligatory would yield ungrammaticality in (3a). Also, the grammaticality of (1b) shows that the raising is not last-resort, i.e. allowed only if it rescues the unraised version from ungrammaticality. I will discuss why that is in relation to Scope Shifting Operations under Fox (2000), which are allowed only if the shifted and non-shifted versions are non-equivalent.

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# Optionality of wh-movement and the wh-parameter

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Languages differ in how they form wh-questions. Thus, in a neutral English question 'What did John buy?' the wh-phrase cannot remain in object position (*John bought what?), whereas the opposite is true of Chinese. This variation is typically analysed by assuming that a syntactic feature driving wh-movement is present in English-type languages but not in Chinese-type languages. This approach presupposes that in a given language wh-movement either happens or not. However, most languages allow both in-situ and ex-situ strategies for wh-questions. Thus, English allows insitu wh-questions (e.g., So, John bought WHAT again?) providing the whcat gory is contextually linked (C-linked), i.e., the value for the wh-variable is retrievable from the preceding context. Conversely, Chinese permits wh-movement under the same conditions (Wu 1999, Cheung 2008, 2013). This talk offers an interface-based approach to the wh-parameter that captures this optionality. I propose that languages have two competing strategies for forming wh-questions, a default strategy for neutral wh-questions with a non-C-linked wh-category, and a marked strategy with a C-linked wh-category. In languages in which wh-fronting is the default strategy (e.g., English, Russian, German), a wh-variable not aligned with the left edge of an intonation phrase obligatorily attracts the strongest prosodic prominence in its domain, which automatically leads to its C-linked construal. Fronting is therefore necessary in order to achieve destressing and the corresponding unmarked construal. Conversely, in wh-in-situ languages (e.g., Chinese), destressing is possible in situ, whereas a fronted wh-variable obligatorily attracts the strongest prosodic prominence in its domain and hence acquires the C-linked reading (Lin 2021). In the talk, I expand the interface-based approach to obligatory wh-fronting languages (e.g., Russian) and demonstrate that the obligatory wh-fronting is driven by the need for a bare wh-variable to escape the main stress position and the associated emphatic interpretation.

# AG 7

## The diachrony of word class peripheries

Tanja Ackermann, Linnéa C. Weitkamp & Christian Zimmer

# Love it, change it, or leave it
# Paths of change of word class-peripheral items

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In this talk, I survey change of word class peripheral items in inflection from a morphological typological perspective (including cross-connections with syntax, semantics, and phonology). I start with a tentative definition of word class peripheral status for the inflectional domain (including open questions) and a non-exhaustive typology of sources of periphericity. Then I discuss three paths of change concerning peripheral items and subclasses in order to arrive at tentative generalizations concerning:

*Leave it:* What are conditions promoting the loss of word class peripheral items or subclasses?

*Change it*: What are conditions promoting the abatement of word class peripheral status, i.e. the integration of items in core patterns?

*Love it:* Under which conditions can peripheral status be time-stable and even be reinforced? In which ways can it be reinforced?

Answers will be exemplary, based on case studies from inflection class change, from adjective gradation, and from the pronominal domain of German and other Germanic languages.

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# Periphery or second prototype?
# Genitive prepositions in German

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Prototypical prepositions of German, like for example *mit* ('with') or *bei* ('at'), are historically old, highly grammaticalized and take dative complements (cf. Lindqvist 1994). Historically new prepositions however, often vary in their case government between dative and genitive, like for example *während* ('while') or *dank* ('thanks to'). From the perspective of grammaticalization theory, a movement towards the prototype and therefore an increase in the use of datives would be expected. However, the genitive is widely used and even becomes more frequent in combination with such prepositions (cf. Di Meola 2003; Vieregge 2019). An explanation can be the social meaning of the variants: genitive government is enregistered (cf. Agha 2003: 231) as part of the standard variety and formal registers, while the dative is seen as belonging to colloquial speech or dialects (cf. Davies/Langer 2006: 209).

In order to collect metapragmatic statements about genitive and dative variants of several prepositions as well as data about their usage in different contexts, an online survey among 400 German speakers was conducted. The participants conceptualize the genitive as part of formal and professional registers and perceive the dative as uneducated and informal. In the production experiment, they use the two variants to indicate a difference between formal and informal registers. These results suggest that there is a second prototype of German prepositions, which is characterized not only by formal features but especially by the social meaning of the genitive.

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# The diachronic instability of Spanish object mass nouns: A peripheral category?

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In languages with obligatory plural marking Object Mass Nouns (OMN) such as *furniture*, i.e. superordinate mass nouns referring to discrete entities, seem to belong a peripheral class of the peripheral class of mass nouns. Although diachronic research on OMNs is scarce, our own studies indicate that the macrodiachrony can shed light on the status of this special noun type (see Mihatsch 2016 for a case study and Kleineberg, ms, on the degree of productivity of OMNs). For this talk, we will focus from a CxG-perspective (see Hilpert 2013 and Boas 2008) on questions regarding possible regular paths of change, their diachronic (in)stability, their degree of productivity as well as the possibility of an underlying constructional schema. These questions will be examined for a selection of Spanish OMNs in the domains of clothing, furniture and people basing our analysis on extensive corpus data from the 12ᵗʰ to the 21ˢᵗ century (*CNDH* and *CORPES XXI*). The analysis will be complemented with a comparison to some of our previous research results for other Romance languages as well as research on hapax legomena in present-day Spanish. Our results confirm that OMNs are diachronically derived, often unstable and oscillating between count and mass, highly idiosyncratic and rarely tending towards a core such as typical count nouns or mass nouns. This points to an intermediate status between count and mass nouns, but not to a distinct category of OMNs.

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# A diachronic approximation to singulative number marking within Northeastern Africa's tripartite number languages

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In contrast to the situation of nominal number marking in German – displaying mainly a bipartite opposition of morphologically unmarked singular forms and morphologically marked plural forms – a reverse strategy can be observed in a significant number of languages from various language groups. In these cases, morphologically marked singular forms are instead derived from morphologically unmarked plural forms of a noun, leading to the term singulative marking. While this phenomenon can even be found in e.g. Europe's Celtic languages (see Stolz 2001, Wälchli & di Garbo 2019), the global hotbed of singulative marking is situated in Northeastern Africa among languages of the Nilo-Saharan as well as the Afroasiatic phylum, where singulative forms appear as part of so-called "tripartite" number marking systems (Dimmendaal 2000). Even though most of these systems have been analyzed typologically, the diachronic development of singulative marking has not been sufficiently examined as of yet and remains highly speculative due to the lack of suitable sources. However, a first approximation can be obtained through available synchronic data, leading to two major hypotheses, which will be presented in my talk. In order to ensure the comprehension of these systems, a synchronic view on singulative number marking will be provided in the first part, before the second part will be centered around potential diachronic developments of the singulative and its distribution within different number marking systems (bipartite, tripartite).

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## The onymic status of unique nouns in Romance languages

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Non-relational individual nouns such as *king*, *pope*, etc. are inherently unique while non-relational sortal nouns such as *man*, *boy*, etc. are not (Löbner 2013: 76–78). Cross-linguistically, unique nouns can morphosyntactically differ from non-unique ones and even behave like personal names. This paper examines the onymic status of unique nouns in selected Romance languages providing evidence from possessive constructions in Old French and Differential Object Marking (DOM) in Old Spanish.

In Old French, possessive constructions involving human referents as possessors could be realized by means of juxtaposition or the prepositions *à/de* (Buridant 2000: 99–100). Personal names occur with juxtaposition (*li filz Ø Lancelot* 'the son of Lancelot') while human common nouns occur either with juxtaposition or with preposition. However, unique nouns resemble personal names in that they take juxtaposition  (*li fils Ø le rei* 'the son of the king') while non-unique nouns take the preposition *à/de* (*le fil au chevalier* 'the son of the knight').

In Old Spanish, DOM is obligatory with personal names, but optional with human definite NPs (Laca 2006: 442–443). However, a closer look at the category of human definite NPs reveals that unique nouns such as *rey* 'king', *infante* 'prince', etc. differ from non-unique nouns such *hombre* 'man', *moço* 'boy', etc. in that they always require the *a*-marker (*ca él conoscía muy bien al rey* 'since he knew the king very well' vs. *que tomasse Ø el moço a cuestas* 'that he should carry the boy on his back'). In this respect, unique nouns resemble personal names.

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# Adjectival adverbs or adverbial adjectives?
## How diachrony can explain synchrony

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As opposed to other Indo-European languages, German displays a large class of adjectives that can be used in adverbial functions without further morphological marking (cf. Vogel 1997):

(1)  Justus  läuft  *langsam*.
     Justus  run$_{3.sg}$  slow
     'Justus runs slowly.'

Traditionally, such elements are called *Adjektivadverbien* ('adjective-adverbs'), *adverbiale Adjektive* ('adverbial adjectives'), etc. Despite the terminological issue, there is disagreement in German grammars whether these elements are adverbs or adjectives in nature (cf. Helbig & Buscha 1975; Eisenberg 1994 among others). Since it is generally assumed that they share both adjectival and adverbial properties, they cannot be conclusively ascribed to either word class (cf. Telschow 2014). Furthermore, the discussion on this topic is often largely driven by synchronic observations without considering diachronic facts (but see Bartfeld 2015; Paraschkewoff 1967 for an important exception). In this paper, we intend to discuss and bring together synchronic and diachronic observations in order to shed new light on the historical development and grammatical properties of this particular class and, more generally, on the formal distinction of adjectives and adverbs. We will show how different types of adverbs grammaticalized starting from adjectives. In particular, we will distinguish different stages in the grammaticalzation process, which can help us to explain the different properties displayed by these elements synchronically.

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# A phantom in the history of German?
# On the emergence of relational adjectives

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Relational adjectives (RAs, such as *richterliche Entscheidung* 'judge's decision', *kindliches Spielen* 'chilren's playing') are a frequent phenomenon of present-day German (PDG; cf. Gunkel/Zifonun 2008, Zifonun 2011, ten Hacken 2019). In contrast to the historical development of qualitative adjectives denoting properties (as in *essbarer Pilz* 'edible mushroom', *mutige Katze* 'brave cat'; see e.g. Kempf 2016), the focus of investigation of RAs was on synchronic (see e.g. in Hotzenköcherle 1968), but not on diachronic matters. This is why RAs are considered a phantom in the history of German (not only since Grimm 1826).

Theoretically, RAs display a non-qualitative, non-scalable, and non-polar and a non-nominalizable character (cf. e.g. Fábregas 2007, Marchis Moreno 2015, among others). In this corpus-based talk, data from different language periods (such as from Old High German: *ReA*, from Middle High German: *REM*) will be contrasted with each other in order to identify semantic and formal differences: It will be shown that earlier periods differ significantly from later periods since no systematic examples with argument structure are attested. This points to a more general language change in which argument structure seems to be a relevant dimension for the development of a (non)-peripheral word class of relational adjectives.

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# From *kaum Platz findend* to *am platzsparendsten*.
# A diachronic study on German noun-participle combinations as peripheral adjectives

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*Mitleiderregend* or *Mitleid erregend* 'pitiful'? Noun-participle combinations are hybrids between adjectives and phrases. This contribution studies how the noun-participle pattern diachronically evolved between these two poles.

In terms of their syntactic distribution, noun-participle combinations behave like adjectives. For instance, they occur in an attributive position: *ein aufsehenerregender/Aufsehen erregender Hut* 'a sensational hat'. Due to their syntactic origin, most combinations hardly exhibit any further adjectival features. However, previous research suggests that noun-participle combinations converge to the adjectival core (e.g., Pümpel-Mader et al. 1992: 260, Fuhrhop 2000).

To study this phenomenon on a large empirical basis, a diachronic corpus of German newspapers was examined. The data confirm that noun-participle combinations have undergone a process of adjectivization: Over the past 300 years, they are increasingly written as a single word and take linking elements. Additionally, comparison is increasingly expressed synthetically (*am meisten zeitsparend > am zeitsparendsten* 'most time-saving'), a feature typical of core adjectives. Moreover, this study shows that adjectivization is expedited by high token frequency of individual types. It is argued that the phenomenon is best characterized by assuming a gradient distinction between adjectives and phrases, highlighting the need of the concept of core and periphery especially from a diachronic perspective.

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# Categorially a-drift: The history of English *dare*

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The English verb *dare* initially belonged squarely in the class of preterite-present verbs, along with today's modals. As the modals crystallized into a formally and functionally coherent paradigm, however, *dare* became increasingly marginalized as a member of the same class (Denison 1993; Plank 1984). It is not entirely surprising then that ever since Middle English, *dare* has been losing modal-like properties such as direct negation, inversion, its unmarked present third person singular and its bare infinitive complement, and has gradually acquired the behaviour of a normal lexical verb, including the appearance of non-finite forms, use with *do*-support in interrogative and negative clauses, a regularly marked third person singular and *to*-infinitive complements, alongside a regular past tense. Detailed studies by Schlüter (2010) and Gregersen (2020) confirm this general picture.

In that light, it is tempting to think of the history of *dare* as one of regularization, whereby *dare* is brought in line with the morphosyntactic behaviour expected of a lexical verb. However, closer inspection also reveals that the various changes this apparent regularization involves are (i) surprisingly slow, (ii) not simultaneous, (iii) not even strictly directional and (iv) heavily interdependent. We therefore argue that the force of regularization to which *dare* is subject is, in fact, a relatively weak force. Regularization may well reflect general global analogical pressure to treat *dare* as a lexical verb, but it is a complex set of additional interacting local pressures that actually control the development towards greater regularity.

That suggests that categorial anomaly is mostly tolerated by language users, and when it is redressed, it is done opportunistically and in piecemeal fashion.

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## Prototypical vs. peripheral verbs
## Can transitivity help us tell the difference?

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Tokens of the same verbal construction do not form a homogeneous class. They may differ in a range of morpho-syntactic properties. Consequently, we may ask whether any of the three uses of *sting* in (1) to (3) is a more prototypical exemplar of the verb than the others.

(1)    The word did not **sting** her tongue. (NCF2, 1861)

(2)    A man who had been [. . .] **stung** by nettles. (NCF2, 1861)

(3)    Are you, you little serpent, warmed by my fire, going to **sting** —; you! (NCF2, 1852)

I will further address whether any of the three is a more prototypical member of the much larger class of transitive verbs and whether others are merely peripheral members of this class – here, the most obvious candidate for peripheral membership might be (3). I furthermore explore whether proximity to the transitive prototype makes a verbal construction a better representative of the class of English verbs as a whole.

To this purpose, I will first compare different concepts of prototypical transitivity which go beyond the syntactic concept and incorporate a range of semantic and/or morphological factors (cf. e.g. Hopper and Thompson 1980; Givón 1984; Dowty 1991; Næss 2007). Secondly, I discuss indications that certain aspects of transitivity may render a construction more verblike. Finally, I illustrate the potential of prototypical transitivity as an explanatory tool in language variation and change and show how it can serve to characterise the variability of verbal constructions in terms of how close they permit their members to move towards the edge of the verbal space.

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# At the periphery of the verbal category: Early-stage grammaticalization of quotative verbs

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Across languages quotatives often develop from lexical verbs meaning 'say' and 'do' – the most frequent verbs co-occurring with speech reports. This process is well documented (Deutscher 2012 inter alia) yet little is known about whether and how the original verbs may be affected by this development. A closer look at the earliest stages in this process suggest that the verbs involved in this change show exceptional morphosyntactic and phonological properties that distinguish them from other verbs in the same language. For example, they can be used finitely in combination with another finite verb, in what looks like a monoclausal construction featuring two finite verbs (even in languages that normally do not have serial verb constructions). The exceptional behaviour of the finite verbs of speaking does not fit well into the traditional picture describing the development of quotative markers from verbs as involving an intermediate stage of a defective or quotative verb (Güldemann 2008).

We suggest that the change can be productively described in terms of certain verbs developing new exceptional uses while initially retaining the full range of their morphosyntactic properties. It is remarkable that the exceptional behaviour is associated in this case not with peripheral members of a category (as suggested, for example, in Joseph (1997)), but with highly frequent verbs, which can be assumed to belong to the category's core. We reflect on possible reasons for this phenomenon in light of cross-linguistic evidence for the development of new word classes.

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# The pseudo-verbal word class category in Arabic

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The different Arabic varieties have grammaticalised a set of so-called pseudoverbal forms. These synchronically take on various verbal auxiliary and matrix predicate functions in the grammar, yet are erstwhile prepositions (1), nouns (2) or quantifiers (Comrie 2008).

(1)  mona   **il-ha**        ʔanf       ṭawīl
     *Mona*  *have*-3SGF.GEN  *nose*.SGM  *long*.SGM
     'Mona has a long nose.'                          Palestinian

(2)  **šakla**-ha          ʔet-ħassin-it
     seem-3SGF.GEN        refl-become.better.PFV-3SGF
     'She seems to have got better.'                  Egyptian

The erstwhile preposition meaning 'to, for' in (1) has become reanalysed as a transitive verbal predicate expressing a possessive relation displaying what Stassen (2009) refers to as a HAVE-Drift. In (2), a previous nominal form meaning 'form, shape' that solely took a GEN-marked argument as its complement now functions as a fully-fledged 'seem, appear' raising-type predicate (Camilleri & Sadler, 2019). Both these pseudo-verbal forms happen to co-exist with their source lexical forms in the grammar.

Shared across this peripheral word class is a non-canonical subject realization. The grammaticalisation of pseudo-verbs has in Arabic rendered a new paradigm of subject inflection that constitutes a reanalysis of the bound GEN pronominal complements of the precursor prepositional and nominal lexical items. Reference will here be made to prominent internal possessor behaviours (Bárány et al., 2019) – hypothesised to have functioned as diachronic triggers for the development of pseudo-verbs and the concomitant non-canonical synchronic behaviours they manifest.

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# German verbs – or nouns? or adjectives? – that cannot occur in V2 position: A diachronic perspective

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The purpose of this paper is to trace the diachronic development of some selected German lexemes that are commonly considered to be verbs which cannot occur in their typical verb-second (V2) position (1).

(1) a. * Der Arzt schutz-impf-t den Hund mehrfach.
     the doctor protect-vaccinate-PRS.3SG**V2** the dog repeatedly

 b. * Der Arzt impft-t den Hund mehrfach schutz.
     the doctor vaccinate-PRS.3SG**V2** the dog regularly protect
     'The doctor inoculates the dog repeatedly.'

 c. *ob der Arzt den Hund mehrfach schutz-impf-t.*
     whether the doctor the dog repeatedly protect-vaccinate- PRS.3SG**VL**
     '… whether doctor inoculates the dog repeatedly.'

 d. *Der Hund ist mehrfach schutz-ge-impf-t.*
     the dog is-PRS.3SG**V2** repeatedly protect-PTCP-vaccinate-PTCP
     'The dog is repeatedly inoculated.'

While this puzzling positional restriction has been observed for some time (cf. Vikner 2005; Fortmann 2007; Haider 2010; Booij 2010), an analysis is not imminent. In Forche (2020), I demonstrate that most of these lexemes rarely occur finitely at all but rather as N+N or N+A compounds (*impfen*$_V$ → *geimpft*$_V$ → *geimpft*$_A$ → *schutz*$_N$+*geimpft*$_A$) in nominal constructions (cf. (1d)). Hence, their status as verbs must be questioned. Using historical corpora of the *DWDS*, this paper investigates the (syntactic) usage and micro-diachronic development of selected verbal pseudo-compounds and their respective bases in order to find out how these categorially ambiguous lexemes occupying the spaces on the periphery of, or between, verbs, nouns, and adjectives came into being.

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## Particle-prefix combinations in German verb-formation

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Word formations like those in (1), in which a verbal prefix and a verb particle occur together, only make up about 2% of the diverse complex verbs in German (cf. Kühnhold 1974):

(1)   *anerkennen* 'to acknowledge', *abbestellen* 'to cancel'

Such formations are interesting for at least two reasons: On the one hand, since Paul (1920: 34), a tendency towards unseparated use is attested, e.g. for *anerkennen* 'acknowledge', although it is a separable particle verb:

(2)   Sie anerkennt      ihn      nicht.                (Paul 1920: 34)
       she  acknowledges him     not
       'She does not acknowledge him.'

Due to the problematic separability, Forche (2020: 173–177) discusses the similar *auferstehen* 'to arise' as an instance of NonV2-verbs.

On the other hand, an exemplary diachronic comparison of particle-prefix formations with *ab-* 'off, from' shows that the number of types decreases towards contemporary German: In Middle High German, 90 formations can be attested, in Early Modern High German even 144, while Duden today records only 17 formations (cf. Albers 2019: 23).

This contribution presents studies on the semantics and separability of such formations as well as possible reasons for their diachronic decrease.

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# Grammatical integration of loanwords and their diachronic perspective: an empirical study on English verbs in the German language

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How do the morphological and graphic phenomena of English verbs develop during German assimilation? Are there any rules or tendencies identifiable in the borrowing process? How do borrowings differ grammatically from native verbs?

A quantitative and qualitative analysis of data from the DeReKo-corpus of written German has shown a significant correlation between time and frequency based on 50 foreign verbs. The connection between an increasing frequency and more complete inflectional paradigm is apparent. The empirical study shows that frequently used verbs use the entire inflectional paradigm and are often used as inflectional forms in journalistic texts (Burmasova, 2010). Borrowed verbs which are less-frequently used, prefer the participle and infinitive forms which require less grammatical assimilation. Written German appears to avoid the inflection of especially complex verbs because of linguistic cases of doubt. The diachronic perspective shows that the infinitive forms are used less frequently whereas the use of inflectional forms increases. This suggests a trend towards less grammatical differentiation from native verbs.

A common phenomenon identifiable in the integration process is that different versions of a conjugated verb exist; for example, the endings in the written language. These are either based on the native (English) paradigm or oriented on the German pattern. Sometimes there even exists an intermediate stage (Mihutiu, 2013). Why do a large number of foreign verbs conform to the German pattern, while some verbs (even those with a long linguistic usage and a high frequency) are still written in a deviant pattern?

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## Imitative words as parts of speech: A diachronic approach

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Imitative words are words with iconic correlation between form and meaning, iconicity being a relationship of resemblance. They can be further classified into different (often overlapping) categories – onomatopoeic, sound symbolic, echoic, or mimetic words (Anderson, 1998). The talk is devoted to the discussion on grammatical categorisation of imitative words in diachrony.

In some languages imitative words are ascribed to a grammatical class of their own: there is a term 'ideophone' for iconic words in African languages, occasionally applied in Indo-European linguistics. In Russian, imitative words are considered to be marginal phenomena, they are marked 'onomatopoeic' and opposed to 'interjections'. In English, on the other hand, they are labelled 'interjections'. However, there is no formal difference between, e.g., *maa* (int.) and *maa* (v.) in English. Moreover, ideophones (where they are defined as such) are not an isolated class – they develop into other parts of speech (McGregor, 2001). The research corpus is comprised of 1244 English and 596 Russian words labelled 'onomatopoeic' in *OED* and *Vasmer* respectively. Historical-comparative method and method of phonosemantic analysis were applied.

Iconic resemblance between form and meaning 'fades away' under the influence of (1) lexicalization, (2) regular sound changes, and (3) semantic shifts – the process I called 'de-iconization' (Flaksman, 2017). Thus, as iconicity is a relative quality (which can be measured), ascribing imitative words to a separate grammatical category is unnecessary – the difference between 'proper' imitative words-interjections and onomatopoeia-based verbs is only in their (changing !) degree of iconicity.

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## (Emergent) word class shifts in Unserdeutsch

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The origin and further development of the creole language Unserdeutsch from standard German as the lexifier language includes (emergent) recategorializations – word class boundary crossings – that are conditioned both by language contact and grammaticalization processes. Due to strong degradation of considerable parts of the lexifier's inflectional morphology the application of morphological criteria for word classification is difficult and partly even impossible in Unserdeutsch. Thus, many lexemes or grammemes are in a categorical "limbo". In our talk we will first concentrate on the elaboration of the core features of word classes which should help to distinguish adjectives, nouns, and verbs from each other and from the neighboring parts of speech. For example, the minimal inflection of adjectives (e.g. *Wi sen ale* **shöne** *ding* 'We have seen the beautiful things') blurs the boundary between adjectives and adverbs, while at the same time the absence of the category case makes boundary crossings between nouns and adjectives easier (e.g. *I bin riti* **tsorn** *mit [name]!* 'I am really angry with [name]!'). In our approach, we will also take the unstable morphological behavior of the individual word class representatives on the one hand and of the category on the other hand into account. We will then discuss selected category shifts in depth. Our main focus will be on the following typologically particularly interesting category transitions, presumably supported by the special language contact situation: (1) the use of verbal adjectives (e.g. *She hat shon* **tot** 'She has already died') and (2) prepositionally used directional elements in serial verb constructions (e.g. *Di ale* **laufen get** *fliken waserkrese* 'They all went [on foot] to pick watercress'), and further (3) individual lexemes which are subject to a transition from a content word class to a prepositional element (e.g. *lassen rope* **rund** *du* 'you wrap a rope around you'). Our study is based on the Unserdeutsch speech corpus (UNSD) currently being prepared for publication in AGD/DGD at IDS Mannheim, which contains almost 50 hours of transcribed and PoS-annotated interview recordings as well as additional question book translations.

# AG 8

## How productive is derivational morphology?

Jenny Audring & Kristian Berg

# Productivity in inflection

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The Discriminative Lexicon Model (DLM) provides a computational framework for understanding lexical processing. The DLM makes use of mathematically simple mappings between high-dimensional representations for form and for meaning. For the representation of meaning, we make use of embeddings from distributional semantics. In this presentation, we provide an overview of two sets of results. At the macro-level, we focus on morphological paradigms across a range of languages, and show how irregularity in paradigms leads the DLM to become less productive. At the micro-level, we present some results obtained for inflection in English and Russian. For both languages, we are finding that inflectional meanings, as gauged with distributional semantics, have more fine-grained semantic structure than one would expect given standard realizational models of morphology (including the DLM). We conclude with sketching how our model can be further improved, and how it might contribute to a deeper understanding of productivity in inflection.

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# An entropy-based approach
# to measuring morphological productivity

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Studies of morphological productivity often aim to compare how productively morphemes are used, whether synchronically, diachronically, between language users, or in different situational contexts. Corpus-based studies generally do this by drawing samples from corpora, computing several productivity measures on those samples, and comparing the values obtained. However, the standard productivity measures all depend on sample size, meaning that values cannot be sensibly compared if sample sizes differ [1].

Here we propose a new measure that does not depend on sample size: the Shannon entropy of a morpheme's type frequency distribution. The entropy of a type frequency distribution is sample-size-independent because type frequencies approximately follow a power law, namely Zipf's Law, and power laws are scale-free [2]. Though type frequency distributions are not perfectly scale-free, they stabilise once the sample is large enough, and their entropy thus converges to an interpretable value.

Further, we tentatively validate entropy as a measure of productivity using a Bayesian linear model that shows that, for 33 German nominalisers, entropy displays probable associations in the expected directions with three factors proposed to affect productivity: one frequency-based, one semantic, and one phonological [3]. In sum, we believe that entropy's desirable properties as a productivity measure make it a valuable addition to the repertoires of researchers of morphological productivity.

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# German affixes of negation: productivity and affective content

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We aim at combining a synchronic corpus-based investigation of the productivity of German privative affixes with an examination of their affective content. The latter can be described as a component of a word's meaning, namely its emotional valence (pleasant vs. unpleasant) and its arousal (ranging from calm to excited). Within the domain of word formation, the notion of productivity has been predominantly applied to derivation (cf. Bauer 2005). Nonetheless, Aronoff's (1976: 35) description of productivity as "one of the central mysteries of derivational morphology" seems to be still valid. It is neither clear what 'productive' means (cf. Gaeta and Ricca 2015: 843) nor how productivity has to be measured adequately.

We focus on negating and privative affixes (*un-*; *ent-*; *-los*; *-frei*), a very well developed domain of German word formation (cf. Fleischer & Barz 2012: 346). As a first step, we use Baayens standard productivity measures (e.g., Baayen 2009) as well as the measure of entropy (cf. Gibson et al. 2019) to determine productivity values for the mentioned set of affixes resp. their derived words. We then investigate potential competition between affixes, focusing on *-los* and *-frei*, and the connection between productivity and affective content.

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# Diachronic suffix competition across registers and social groups in Early and Late Modern English

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This talk presents two case studies on the nominal suffixes *-ness* and *-ity* in Early and Late Modern English, using new statistical and visual methods that facilitate diachronic comparisons between competing suffixes across registers and social groups (Rodríguez-Puente et al. submitted).

Our first case study focuses on register variation over time in three EModE corpora. We find that the borrowed, more learned and prestigious suffix *-ity* gains ground on the native *-ness*: *-ity* first takes off in more formal written registers by the beginning of the seventeenth century, whereas speech-related registers lag behind until the end of the seventeenth century. This development was probably aided by a general trend towards a more literate style particularly during the eighteenth century (Biber & Finegan 1997).

Our second case study investigates gender variation in the speech-related register of personal letters in the seventeenth and eighteenth centuries. We find that *-ity* gains ground on *-ness* with women lagging behind, catching up from the late seventeenth century onwards. This could be related to gendered styles of letter-writing: in the seventeenth century, men's style is more informationally oriented and a better match to the learned *-ity*, whereas a shared style seems to have developed towards the eighteenth century (Degaetano-Ortlieb et al. 2021).

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# Clipping and productivity

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Clipping is a non-morphemic word formation process which is best described as a derivational process, since clipped forms are always truncated from longer full forms. Clipping usually operates from right to left, so called back clipping (1).

(1) *sax*        from      *saxophone*

The outcome of this clipping process is usually a (mono)syllabic form. However, there is another, more recent process of clipping that leads to disyllabic clipped words:

(2)   *psycho*    from     *psychopath*

In this case the resulting form is trochaic, which is the most preferred foot/word form in English. Almost all disyllabic trochaic clippings in English exhibit final -o. The development did not stop here (Hamans 2021: 116) but continued with derivational processes which led to embellished clippings (3) and even pseudo-embellished clippings (4):

(3)   *lesbo*     from     *lesbian*    + o
(4)   *creepo*    from     creep      + o

Although monosyllabic clipping is said to be a historical process, see for example *gent* from *gentleman*, monosyllabic clipping only recently became frequent (Marchand 1969[2]: 449). Disyllabic clipping with final -o, and the subsequent processes of (pseudo-)embellished clipping are recent phenomena. However, they appear to be rather productive.

Unfortunately, there are no reliable frequency figures available due to the very recent productivity and the substandard stylistic value of these clippings. However, it is most likely that it is not clipping that changes the stylistic value of the word, as claimed by Bauer (2003[2]: 40), but it is an informal register that triggers the processes of clipping.

A similar development can be observed with blends, but with blends it is not a question of derivation, but rather of compounding.

# Productivity factors and affix life stages

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The goal of this contribution is twofold: First, it seeks to present a comprehensive model of productivity factors in derivational morphology. Based on previous research including our own work on word-formation change, we present an overview of factors that have been shown to enhance or inhibit the productivity of derivational patterns, and we discuss from a Construction Grammar perspective how these factors interact. Second, we refine this overview by taking into account the impact of these factors at different stages in the life span of an affix.

A number of productivity factors have been widely discussed, including type and token frequency (cf. De Smet 2020) or parsability and autonomous storage (Hay & Baayen 2002, Hay 2001, 2003, Blumenthal-Dramé 2012). We propose a multifactorial model that seeks to explain how those different factors are connected. In our presentation, we will focus on two factors and discuss them in more detail: the number of potential bases on the one hand and salience on the other.

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# Syntact-ic or syntact-ical? Predicting individual productivity with an analogical model

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Analogical theories assume that language users create novel forms on the basis of similar forms in their Mental Lexicons (e.g. Bybee 2010). Differences in productivity, emerge, in this view, from differences in the structure of similarity distributions among existing words. Productivity is an epiphenomenon, describing how likely a set of stored complex words is to serve as analogues for a novel form. Whereas especially computational analogical models have been very successful in modelling affix rivalry, pertinent studies have mostly abstracted away from differences between individual speakers' vocabularies. If, however, affixes are assigned on the basis of similar words, speakers with different lexicons should make different choices.

The present paper uses the rivalry between the English adjectival suffixes *–ic* and *–ical* to study the interrelation between lexical knowledge and productivity in a computational analogical model (AML, Skousen et al. 2013). Simulations using different lexicons based on register-specific profiles of *–ic* and *–ical* words in the *British National Corpus* will be shown to yield testable predictions about speaker differences. For example, in line with claims that *–ic* is more productive than *–ical* (e.g., Lindsay & Aronoff 2013), AML predictions for *-ical* are characterised by greater uncertainty than for *–ic*. However, support for *–ical* is stronger when the lexicon is based on spoken language than when it includes academic words. Furthermore, different hubs among gangs of analogues can be identified in networks based on different lexicons, resulting in different productivity profiles for the two affixes.

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# Can insights from compound productivity enrich the understanding of productivity in derivation?

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While productivity in derivation is a highly popular field of research, productivity in compounding has not received a similar degree of attention. This project intends to show to what extent compound productivity can rely on the concepts established in derivational productivity and in how far insights from productivity in compounding are useful for the general understanding of productivity.

Importantly, the elements whose productivity is investigated are of different kinds for these two word-formation processes. What is of interest in derivation is the productivity of affixes. In compounding, productivity is regarded for lexemes. This has two implications. Firstly, it brings along a functional difference. While an affix is predetermined in its function as modifier or head, lexemes can act in both functions. This brings into play the concept of 'constituent productivity', which contrasts a lexeme's productivity in the function of modifier and head (cf. Bauer et al. 2019). Secondly, it affects the concept of availability. It can be claimed that there are fewer types of constraints in compound productivity than in derivational productivity, as there are barely any structural limitations in the composition of lexemes.

From a methodological perspective, the measures that are established in derivational productivity (cf. Baayen 2009) are not suitable to the same degree to measure the productivity of compounds. While hapaxes play a central role in two of Baayen's approaches, hapax-based measures must be argued to be rather unsuitable for compound data for several reasons.

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# Input sparsity and derivational relationships in Latin and Spanish

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At a basic level, children learning their native language need evidence from their input over which to identify productive patterns and distinguish them from unproductive or memorized ones. That said, the attestation of morphological forms in even large language samples is notoriously sparse, raising the question of how children manage. I analyze the attestation of cognate derivational patterns which were productive in Latin (Smith et al. (2000)) but no longer in Spanish (Nivre et al. (2018)) to shed light on how input sparsity affects productivity.

Latin has several derivational categories that consistently share a stem with the past participle (pptc) rather than the present. This is the case even for the many verbs with irregular past participles (Aronoff, 1994). In the Latin corpus, the pptc is overwhelmingly more common than any of its derivatives. 90% of verbs attested with one of them are only attested with the pptc, so most of the time, a learner must learn to infer the derivational pattern in order to produce the derivatives with most stems. Stems with both attested pptc forms and derivatives consistently support the derivational pattern pptc→derivative, rendering it learnable.

Spanish retains productive reflexes of agent (usually *-dor*) and event nouns (*-ción*). These derivatives no longer reliably share their stem with the pptc: they prefer to correspond with the present. In the Spanish corpus, only 61% of stems are attested in the pptc but not agent or event derivative. There is less of an immediate need to learn the derivational pattern because a greater proportion of the derivatives are directly attested. There is mixed evidence for the pattern: along with the consistent pptc-derivative pairs, there are many attested pairs where the pptc does not match the derivative (e.g., *vendido-vendedor, destruido-destrucción*). These are due to sound change, morpholological realignment with the present stem, and borrowing from Classical Latin.

# Productivity of derivational morphology in the course of first language development

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There are three important factors influencing productivity of a derivational pattern in child language: input frequency, morphotactic and morphosemantic transparency, and its productivity in the language to be acquired (Clark 2016; Mattes & Dressler 2021). However, our studies of the acquisition of derivational morphology in German (e.g. Sommer-Lolei et al. 2021) show, that the latter factor does not predict emergence and productivity in early child speech (CS). In this phase, transparency and input frequency turn out to be the main conditions for productivity, whereas knowledge of pattern productivity in the language is developed only later (Berman 2004; Clark 2016). The appearance of neologisms is widely considered to be a reliable indicator of the productivity of derivational patterns in CS (Clark & Berman 1984; Swan 2000). However, this criterion as a major proof has also several limitations. We will present the results of our longitudinal corpus studies on the acquisition of derivational patterns, discussing the influencing factors and the methodology of evaluating productivity in CS.

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# Variation and productivity in German L1 and L2 nominal word-formation

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How do German L1 and L2 speakers employ nominal word formation patterns in argumentative essays? This question is interesting because

(a) the morphological knowledge of L1 and L2 speakers goes far beyond lexical and phrasal "lists". Rather, learners use word formation patterns productively (Lüdeling, Hirschmann & Shadrova 2017) and we find complex morphological networks and morphological priming in L1 and L2 (Smolka, Libben & Dressler 2019). (b) For learners, acquiring a native-like command of a given register comes with the challenge of recognizing the adequate use and distribution of morphological patterns.

Based on manual annotations of morphological classes in the Falko corpus (Lukassek et al. 2021) we discuss the following findings:

(1) Overall, patterns in the L2 and the L1 subcorpora are similar. Interestingly, despite their transparency and relative salience, determinative compounds are underused by the learners. (2) A closer look at the distributions  shows very high variance between texts in both subcorpora (cf. Shadrova et al. 2021).

**References:** Lüdeling, A., Hirschmann, H. & Shadrova, A. (2017): Linguistic models, acquisition theories, and learner corpora: Morphological productivity in SLA research exemplified by complex verbs in German. *Language Learning* 67(S1), 96–129. • Lukassek, J., Akbari, R. & Lüdeling, A. (2021): Richtlinie zur morphologischen Annotation von Nomina in Falko. In: *REALIS* 1. https://sfb1412.hu-berlin.de/. • Shadrova, A., Linscheid, P., Lukassek, J., Lüdeling, A. & Schneider, S. (2021):  A Challenge for Contrastive L1/L2 Corpus Studies: Large Inter- and Intra-Individual Variation Across Morphological, but Not Global Syntactic Categories in Task-Based Corpus Data of a Homogeneous L1 German Group In: *Frontiers in Psychology* • Smolka, E., Libben, G., Dressler, W.U. (2019): When morphological structure overrides meaning: Evidence from German prefix and particle verbs. *Language, Cognition and Neuroscience* 34(5), 599–614.

# AG 9

## Narration in context: Between linguistic theory and empirical operationalization

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# The grammar of narration

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> "fictional narration has a different
> grammar from discourse"
> (Kuroda [1979] 2014: 83)

Is there a 'narrative syntax', i.e. a special grammar restricted to narrative discourse? Based on a synopsis of previous accounts focusing on this question since early structuralism, I argue that narration is an 'overt category' (Smith 2003) which is characterized by a distinctive grammatical pattern. This pattern of narration will be analyzed from three different perspectives by investigating (i) the cognitive basis of narrative structure, (ii) the distinctive behavior of grammatical means in narrative contexts, such as the Epic Preterit and the Future of Fate, and (iii) the narratological questions about the status of the narrator and the relation between narration and fictionality (Zeman 2020).

In sum, I will argue that the distinction between narration vs. nonnarration is a fundamental one and, as such, deeply linked to fundamental theoretical questions concerning the architecture of language.

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# The NARRANDO project:
# Spanish storytelling in talk-in-interaction

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To tell stories about past or imagined experiences or events fulfils different pragmatic and communicative functions in talk-in-interaction. Since participants are fully involved in this activity, storytelling in talk-in-interaction is a dynamic and embodied semiotic phenomenon that unfolds sequentially within discursive and interactional contexts and the emerging stories are motivated by these contexts and their very concrete linguistic shape depends on them.

Through this submitted contribution, we present, on the one hand, the recent NARRANDO project from which we aim to gain a better understanding of the transversal mobilization and discursive integration of lexical, syntactic and macro-syntactic, prosodic, and bodily resources of Spanish storytelling in talk-in-interaction on the empirical basis of linguistic and multimodally annotated ecological corpus data from different varieties of Spanish and from different communication contexts. On the other hand, we propose a multidimensional analysis of an excerpt from our corpus data to illustrate our objectives. The methodological approach adopted draws, among others, from interactional linguistics (Charles Goodwin, Elisabeth Couper-Kuhlen, Margret Selting) and the specific French scientific tradition of oral syntax (Claire Blanche-Benveniste), whose analytical level of the "macro-syntax", intermediate between syntax and discourse, has shown its strength for the analysis of spoken language.

The NARRANDO project is organized according to three interfaces put into perspective, i.e. (i) syntax-prosody with members of the LLL lab (Laboratoire Ligérien de Linguistique, Orléans, France) and of the Romanisches Seminar (Freiburg, Germany); (ii) syntax-interaction/ multimodality with members of the ICAR lab (Interactions Corpus Apprentissages Représentations, Lyon, France) and of the LLL lab; and (iii) prosody-interaction/multimodality with members of the Romanisches Seminar and of the ICAR lab.

# There, and back again: On marking the boundaries of free indirect discourse

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Among the means to perspectivize a stretch of discourse in narratives, free indirect discourse (FID) figures prominently. Accordingly, it has received a considerable amount of attention from both linguists and literary theorists; see Banfield (1982) and Fludernik (1993), among many others. Quite naturally, the focus of attention in linguistics has been on the means by which a passage is marked as being FID, thus receiving an interpretation as being protagonist-centered; see Maier (2015) and Eckardt (2015) for some recent theoretical accounts; and Kaiser & Cohen (2012), and Salem, Holler & Weskott (2017), for some experimental evidence. That is, the main research question so far has been: what are the linguistic means to signal the *beginning* of an FID passage?

This is an important question, since the ascription of contents of a stretch of discourse – is it to be ascribed to the 'narrator', or to a protagonist – matters quite a lot for the overall interpretation of a narrative. However, given this, an equally important question is how the *end* of an FID passage is marked, signalling the termination of content ascription to the protagonist. To our knowledge, this question has so far not been addressed in the literature.

In this contribution, we want to present some theoretical considerations and empirical evidence from a corpus study that deal with that question. We contend that some of the linguistic means for marking the end of an FID passage ('FID-unmarking') make use of the same tools as 'FID-marking', among them direct forms of speech and thought report, and anaphoric devices like nominal anaphors and tense. At the same time, some of the means to unmark FID seem unrelated to FID-marking, and rather appear to exploit means that are related to discourse structure in general, like e.g. typographic discourse segmentation. We will present data from a corpus study based on an in-depth analysis of $n=150$ FID passages that illustrate our claims, and that we take to be of some value to theoretical, corpus-based, and experimental investigations of FID as a linguistic phenomenon.

## Overshooting the narrative goal:
## The case of TAM forms in football language

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Football language shows tense-aspect-mood (TAM) forms which deviate from the standard use. The French footballers' imparfait replaces a perfective past in narrative sequences (Labeau 2007). The German footballer's present indicative takes the place of a pluperfect subjunctive in counterfactual conditionals (Egetenmeyer 2021). The common core is a shift in perspective time intensifying the vividness of the conveyed report (Egetenmeyer 2021). We argue that the forms instantiate general narrative tendencies but exceed the standard means.

   We analyze repair mechanisms in the two languages: In French, the lacking boundedness feature is compensated by temporal adverbial expressions, match times, and verb meaning beyond Aktionsart (1). In German, the lacking mood feature is compensated by preceding anticipations of counterfactuality (2), nominal or verbal negative evaluations, or oppositions involving adversative connectors (doch, 'but').

(1)   [1] *Desmenez **tirait** un corner dangereux* [. . .] [2] *puis un coup franc de Desmenez **mettait** en diffficulté Shungu*. [3] *Il **fallait** attendre la 21e pour voir une première offensive des visiteurs* [. . .]. (Emolex; Egetenmeyer 2021)
'[1]   Desmenez shot a dangerous corner [2] and then a free kick from Desmenez challenged Shungu. [3] It was necessary to wait until the 21st minute to see a first offensive of the visitors.'

(2)   [1] *Und das wär' das Tor gewesen*. [. . .] [2] <u>*Kommt*</u> *der Ball*, [3] <u>*kann*</u> *Volland den machen*. [4] *Dann heißt der Gegner nicht England, sondern Schweiz*. (ZDF; Egetenmeyer 2021)
'[1] And that would have been the goal. [2] If the ball had gotten (lit.: gets) to him, [3] Volland could have scored (lit.: can score). [4] Then the opponent would not have been (lit.: is not) England, but Switzerland.'

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## Protagonist-mediated perspective

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Free Indirect Discourse (FID) is a mixed perspective environment: some elements are evaluated relative to the narrator's perspective, and others relative to the protagonist. Although there is ongoing debate over the semantics of FID (Doron 1991, Schlenker 2004, Sharvit 2008, Egetenmeyer 2020), existing work concurs that perspectival expressions convey the protagonist's perspective. I argue against this claim.

I explore uses of the English perspectival motion verb *come* in FID and find that it is not obligatorily protagonist-oriented, but **protagonistmediated**: it can only be anchored to perspectives that are accessible to the protagonist. This overlooked property provides valuable evidence in the debate over the semantics of FID. I show that protagonist-mediated perspective is predicted by the quotation-based account (Maier 2015, 2016, 2017), while the bicontextual account (Schlenker 2004, Eckardt 2014, Reboul, Delfitto & Fiorin 2016) requires a significant extension.

Though previous work claims that perspectival expressions like *come* are protagonist-oriented in FID, this is not always the case. In (1), Lady Bruton is the FID protagonist, but *come* is anchored to the perspective of her addressee, Richard.

(1)    Richard turned to Lady Bruton, with his hat in his hand, and said, "We shall see you at our party to-night?" whereupon Lady Bruton resumed the magnificence which letter-writing had shattered. She might come; or she might not come.                                                  (Woolf 1925)

I explore FID examples of *come* with a range of perspective-holders, and find that to license *come*, a perspective must be accessible to the protagonist. I formulate an account of perspectival motion verbs in FID as **protagonist-mediated** perspectival expressions.

I show that protagonist-mediated perspective falls out naturally from quotation accounts of FID I show that one solution is to track two Common Grounds, rather than two context parameters. This also resolves an issue with presuppositions raised in Abrusán 2020.

# Diachronic Narratology: Linguistic perspectives on the historical development of narrative within the framework of English Studies

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As a literary scholar methodologically working in the framework of language and literature studies I am currently involved in a Reinhart-Koselleck -project funded by the German Research Foundation. This project, called *Diachronic Narratology*, aims at retrieving lines of developments in narrative from the late Middle Ages to the late seventeenth and early eighteenth century in English texts that are narrative or contain narrative passages. The project compares facets of narration in a number of different genres, specifically the Middle English and early modern English romance; the saint's legend; historical texts; *fabliaux* and other short comic literature; letters and diaries; criminal (auto)biography and the picaresque; 'epic' verse narrative (Spenser, Milton, Dryden, Pope).

Preliminary insights into the evolution of narrative structure in English narrative in the given period suggest that there is a substrate of an oral episodic pattern of narration that is still quite visible in the Middle English texts but starts to be modified and to dissolve in longer more extended verse narrative and in the prose texts, which are variously influenced by Latin and French models. On the one hand, these changes can be documented narratologically in terms of a number of 'narratological' features: extended dialogue passages, the introduction of description, extended presentation of consciousness, narratorial comment and metanarrative comments, more extensive narrative report passages. On the other hand, two aspects that are of particular linguistic import can be documented: a) the substitution of typical Middle English discourse markers by a different set of discourse markers in early modern English and b), early modern English syntax, in which short clauses are replaced by very convoluted Latinate constructions that tend to drown out the conceptual frame of the narrative episode. The paper will illustrate these developments on the basis of one or two examples.

# Remembering *the Odyssey* in the 21ˢᵗ century: Spontaneous oral narratives by non-professional readers

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The study reports on the newly available data that comes from the Common Reader project conducted in St. Petersburg, Russia and co-directed by the study's author. As part of the project, in 2018–2019, student assistants collected 65 interviews with adult speakers of Russian who went through the national school system, notable for substantial obligatory reading lists. Respondents were asked to give summaries of what they can remember (at best, full plot summaries) of seven literary texts, one of which was Homer's *Odyssey*; they had no advance knowledge of which texts are included in the interview. Participants were also asked about possible sources of heteromedial interference (film adaptations, operas, etc.). In addition to giving us a snapshot of the life of a classical text in the living memory of our contemporaries, this data, approached with the tools of narratology and motif analysis, yields important insights into how human memory processes literary texts.

Of the 65 respondents, 19 could provide no answer to the question about the *Odyssey* and 46 reported their memories. The analysis of the resulting narratives reveals a hierarchical structure composed of more and less significant elements (motifs), some of which – in the mnemonically weak responses, which only include the lowest-rang shared elements – systematically lead the narrator astray. For example, the notion that the *Odyssey* is a story about sea travel led as many as 11 respondents to confuse it with the myth of the Argonauts fetching the Golden Fleece. The study's key finding is the importance of the single *core motif* (if the respondents could remember just one thing about the text, that thing was the same). The data confirms that the memory of a literary text is not haphazardly determined by an individual's reading experience, but should be approached as a collective and culturally determined phenomenon.

# Terrorist realism as a narrative mode in Russian and Polish prose around 1900:
## Andrei Belyi, Leonid Andreev, and Stanisław Brzozowski

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The development of the political strategy of terrorism in the tsarist empire after ca. 1862 went hand in hand with, or was preceded by the emergence of an extensive number of narrative texts whose relationship to acts of violence should be explored. Both literary narratives and acts of terror can be brought together on a more general level of communication: The Revised Academic Definition of Terrorism describes the latter as "threat-based communication" (Schmid 2012) that works (also) through affect. Moreover, narrative literary texts and acts of terror are both to be understood as communicative acts that share specific properties, distinguishing them from other forms, particularly, the redoubling of the sending and receiving instances.

Cognitive narratology has never been applied to the literary material of terrorist realism, although in this case we are dealing with a particularly body-related and emotionally charged form of communication. In my paper, I concentrate on the pragmatics and "so/ematics" of terrorist realism in the works of selected early modernist writers, particularly, the self-presentation of the subject in view of its splitting and its enaction of "predictive processing", as well as and the spatio-temporal markers of the utterances rendering the diegetic world.

**References**: Schmid, A.P. (2012): Revised Academic Consensus Definition of Terrorism. *Perspectives on Terrorism* 6(2), 158–159.

## Narration in the service of monastic teaching: Special characteristics of narrative passages in Notker's *Psalter*

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The Old High German Psalter of Notker the German (ca. 950–1022) contains didactic commentaries functioning as explanations for teaching purposes (Glauch 2013). Those passages tend to be narrative interjections referring to biblical stories.

| | |
|---|---|
| Original | *Et emundabor a delicto maximo*<br>'And I shall be purged of the greatest guilt' |
| Commentary | *Daz ist superbia. Fone ir chóment alle sculde. <u>Si uuárfangelum de celo unde getéta ín ex angelo diabolum</u>*<br>'That is pride. All sins come from it. <u>It threw the angel from heaven and turned him into a devil</u>.' |

**Example 1**: Sections of Notker's Psalter, N, Ps, 118, 59, 10–13

The passages are embedded in a context having a non narrative goal (Neumann 2014). The notion of embeddedness seem to have implications for formal properties of narrative: (1) the internal structure (Labov & Waletzky 1967) and (2) the initial Space-Building-Part (de Fina & Georgakopoulou 2012, Zeman 2018). Our corpus-based study aims to describe the formal properties of embedded narration and ties in with the conceptual link between narratives and registers (Biber 2019).

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## How to tell tales in Ancient Egyptian:
## The real meaning of the word *sḏd*

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This paper examines an alleged linguistic marker of narrativity in Ancient Egyptian, *sḏd*, which is commonly translated as 'to recount' or 'narrate' (trans.) or 'to speak' (intrans.). To consider the appropriateness of these definitions and the consequent applicability of this lexeme to analyses of narrativity, this study considers the usage of all known cases of verbal and nominal iterations of *sḏd* in context and in diachronic perspective, taking in a timespan of 2500 years and a wide range of genres and registers.

In so doing, it engages with focal points of lexical semantics, such as span of meaning(s), change in meaning(s) from Egyptian to Demotic and the role of the causative prefix s in changing the meaning of *ḏd* 'to speak/say'. It also considers grammatical paradigms (concerning the inflection of infinitive form) and historical syntax (regarding patterns of lexicalisation). The nominal cases also require us to consider the impact of changes on the meaning of the verb over time for the meaning of other word classes. This study then takes the conclusions of the lexical study to consider the role of *sḏd* from text-linguistic and narratological perspectives: What kinds of things can be *sḏd* 'recounted(?)' and are they more 'tellworthy' than things introduced merely by *ḏd* 'to speak/say'?

# When less is more:
## Variation in formal narrations of heritage speakers

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Multilingual speakers display more grammatical variation in their majority language than monolinguals, especially in informal contexts (e.g., Wiese & Müller 2018 for majority German). However, one might wonder whether multilingual speakers also display more variation in formal settings.

In this paper, I analyze the language of heritage and monolingual speakers, focusing on formal registers in different modes (spoken and written) in majority German. I consider specific syntactic, morphological, and phonological phenomena. The empirical basis of this investigation is the German sub-corpus of the RUEG corpus (Wiese et al. 2020), which comprises linguistic productions of mono- and bilingual speakers with different heritage languages (Greek, Russian, or Turkish). The data were elicited using the language-situations set up (Wiese 2020) and hence represent narrations in different registers.

I argue that the bilinguals' narrations do not exhibit more but less variation in formal contexts than their monolingual peers. I discuss several factors that might contribute to this outcome: standard language ideology, monolingual bias and habitus, register awareness, and majority language anxiety.

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# Narratives are unique data for exploring reported speech as a cross-linguistic category

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One of linguistically relevant aspects of narrativity is a high density of reported speech that can be explained by the presence of different characters' communication that is a driving force of the narration. In this report, I show how traditional narratives in typologically diverse languages can be used to uncover properties of reported speech as a cross-linguistic category (Spronck & Nikitina 2019). More specifically, I investigate a correlation between syntactic structure of the reported speech construction and semantics of the quote. In order to address this challenge, I use a Multilingual corpus of discourse reporting (Nikitina et al. 2020) that contains traditional narratives in typologically diverse languages.

According to the corpus data, besides the biases connected to linguistic properties of the individual languages, there are two semantic types of the quote that are not distributed equally between syntactic structures. Firstly, expressions of attitude often have speech introducing phrases. It might be explained by an observation that interjections demonstrate a speech-introducing function (Norrick 2009 inter alia) and compete with fully grammaticalized quotatives but still need additional marking. Secondly, reported thoughts are more marked in comparison with reported speech that might be due to the heterogeneity of mental processes of 'thinking' (Casartelli et al. 2020). Further implications of these results are to be discussed during the report.

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## Independently used German *wenn*-sentences as meta-narrative comments

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My presentation deals with the use of German commentative *wenn*-sentences (CWS) in narrative contexts. CWS are independently used subordinate clauses whose use is tied to the presentation of events or actions, see the examples in (1) and (2). In these contexts, a CWS serves as a means to refer to and comment on an event or action:

(1) 'When foil becomes a weapon'

(2) 'When your boss sends you on a 3 day construction job and you are still there after 4 weeks.'

In newspaper headlines like in example (1), the connection is obvious. Here, the headline refers to the representation of an event in the subsequent text. In tweets and Internet memes as in (2), the reference to the depicted situation is more complex. In my presentation, I will argue that a CWS is used as a narrative marker which identifies a situation as worthy of narration. Moreover, the CWS invites recipients to contextualize the situation depicted by means of the recipients' knowledge and conversational implicatures which leads to a personalized narration.

The CWS discussed here is closely related to the expressive subordinate clause construction recently discussed in Turgay (2020). However, the two constructions differ significantly in that a KWS refers to a narration, whereas the expressive subordinate clause construction is itself a narration.

References: Turgay, K. (2020): Die expressive Nebensatzkonstruktion als Minimal-Narration. *Linguistische Berichte* 262, 199–232.

# What drives narration forward? Microstructural semantics and pragmatics captured by situation theory

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Situation theory (cf. Barwise & Perry 1981, Devlin & Rosenberg 1996) distinguishes situations, distinct areas of the world, and employs them on situation semantics to comprehend how utterances and their environment as context influence the emergence and transmission of information.

On this basis rests the situational segmentation of the fictional multimedia work of *The Girl and Her Trust* (D.W. Griffith 1912) whose narrative structures are conveyed textually and cinematographically. Is situation theory also suitable for formalizing narrative structures and their interdependencies in medial transitions?

The analysis has been guided by dramaturgical standards and the structural narrative analyses of Todorov (1969) and Propp (1972). Regarding further electronic processing, the goal is to formalize narrative information flow as observer-independent as possible. However, linguistics plays an increasingly important role in this context. Deciding which of the "minor" semantic and pragmatic phenomena are relevant to the progress of the narrative and thus worth formalizing causes problems. The formalism will be presented in narrative levels (cf. Zeman 2020) and put up for discussion regarding its relevance for the plot's progress.

Assuming that microstructural linguistics implicitly control the understanding of a narrative, the proposal contributes to the question of how narrative structures can be defined in an interdisciplinary way.

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# The linguistic structure of non-fictional statements

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Fictional narratives consist of typical fictional elements, such as character speech, scene descriptions and narrated events. However, fiction might also consist of statements that do not primarily serve to build up the fictional world (Searle 1975; Konrad 2014). So called non-fictional statements never express events in the narrated world but seemingly universal states. One of the best-known examples of this sort of utterance is the first sentence of L.N. Tolstoij's *Anna Karenina*:

(1)    Every happy family is alike, every unhappy family is unhappy in its own way.

We annotate non-fictional statements based on macrostructural (i.e. narratological) categories in German fictional texts from 1600–1950. Thus far, only little is known about the concrete linguistic features of non-fictional readings. Inspired by Smith (2001), I hypothesize that non-fictionality is a mode of discourse. Hence, I expect linguistic similarities in our annotated data.

A brief first qualitative analysis suggests that non-fictional statements indeed have several indicators in common, such as V2 declarative sentence structures, present tense, copula-constructions as well as generic and/or (all-)quantified expressions. Usually, non-fictional statements correlate with a shift from past tense to present tense.

In my presentation, I will share and discuss examples of our annotated non-fictional statements. The overarching goal is to develop a tagset based on morphosyntactic and semantic categories to provide a quantitative approach to the phenomenon.

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# Narration in academic language: A corpus linguistic approach based on verb morphology

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The view of (German) academic language has long been characterized by the (supposed) prohibitions of *ich* ('I'), metaphors and narration, formulated by e. g. Weinrich (1989). The prohibitions of *ich* and metaphors have since been strongly differentiated empirically (e. g. Steinhoff 2007 on *ich*, Netzel 2003 on metaphors). Also the prohibition of narration cannot be generalized, as Steinhoff (2007: 21–22) notes about historians. However, an in-depth empirical study of narration in academic language is pending.

I will present a corpus linguistic approach to narrative structures in academic language based on automatic annotations. Following Titzmann's (2003: 192) distinction, academic texts are not narrative as a whole, but may contain narrative structures to a variable extent. The study therefore departs from a microstructural and reductionistic operationalization of narrativity via the morphological category tense. A corpus of German academic journal articles from linguistics, literary studies, and philosophy with automatic annotations serves as the data basis.

The proportion of finite verbs in the past tense among all finite verbs varies widely: the values range from 0.02 to 0.89, with a mean of 0.16. The proportion is slightly higher in literary studies and philosophy, but there is no statistically significant difference for any of the discipline combinations. A visualization of tense distribution in the texts allows us to identify patterns that can guide a subsequent review of specific text passages. This way, typical functions of narrative passages in academic language are identified, such as biographical accounts or descriptions of procedures in empirical studies.

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## On the margins of narration

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This paper addresses the problem of identifying narratives embedded in biographical interviews as units and annotating them in a corpus. Sometimes, narratives can be delimited on the production and reception side with introductions such as "I tell an anecdote about this", or closings like "that was a funny story" (Gerstenberg 2019). But since Labov & Waletzky's (1967) description of such canonical forms, the spectrum of oral narrative units has been differentiated (e.g., the Small Stories approach of Bamberg & Georgakopolou 2008, or Narrative Traces in Hamilton 2008).

   The contribution proposed here addresses the problem of the identifiability of narrative units embedded in conversation by comparing repeated interviews. The study is based on 50 narratives for which at least one variant is available in a later interview (LangAge): that a passage may be the (fragmentary) variant of a narrative becomes clear in some cases only because a more distinct narrative occurs in another interview with the same person. To annotate for these interrelations, narratives are conceptualized as abstract entities and assigned to their variants. For the stable elements, separate annotation levels are used, and types of embedding in the conversation are distinguished. Even considering the variety of retellings (Chafe 1998), this results in an overall picture of recurring narrative elements shedding light on the contours of narrative units.

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# Suspense is thunder/lightning:
## The impact of pathetic fallacy on narration, a case study

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Pathetic fallacy (hereafter PF) has received varied definitions by educators, scholars, and critics (Ruskin 2012). I created a model of PF based on a survey of English teachers, using a checklist of stylistic tools akin to Leech and Short's (2007), and foregrounding theory (Mukarovský 1964). The model defines PF as a projection of emotions from an animated entity onto the surroundings. Following an approach akin to Short (1996), I identified three "indicators" of PF: imagery, repetition, negation; and multiple effects of PF were observed, such as conveying suspense through surroundings.

In this paper, I demonstrate that PF is a multimodal conceptual metaphor, and I explore how my model of PF impacts narration and readers' conceptualization of events described in scenes particularly with the metaphorical mapping SUSPENSE IS THUNDER/LIGHTNING, I analyse the suspense's effect conveyed through PF in the television show *Ru Paul's Drag Race* and the movie *Clue*. The analysis employs a multimodal stylistic methodology to the texts' transcripts (McIntyre 2008) and focuses on the multimodal presentation of PF's criteria and indicators. Preliminary findings show that PF's effects contribute to the portrayal of suspense in narration through all levels of language, and generate humour, allowing viewers to conceptualize suspense in narratives in a unique way.

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## Analysing narratives in the performative art of Indian puppetry

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The practice of storytelling in India can be analysed with the help of the *Akam* and *Puram* traditions which are reflections of Tamil literature. *Akam* signifies the stories told within the household and *Puram* refers to those recited and narrated outside the household in various public spaces. Puppetry is one such art form of orally imbibed knowledge which creates an alternate space for people that prevents them from getting submerged in the sea of rapid globalization and urbanization. A social gathering as such, of people who experience a sense of shared identity who might or might not be a part of a 'literate culture' exposes how communities still depend on orality, which may or may not be in conformity with grammatical rules but creates patterns that help in memorizing and recalling the shared narratives. The revival of oral traditions sustained the shared, recurrent, and egalitarian nature of prehistoric societies and religions. The notion of time handled by the puppeteers transcends the boundaries of space and as such provides the audience with 'nouvelle instant' wherein they engage with the story and perceive time in a non-linear manner.

Boris Tomaševskij utilizes the concept of fabula time to understand how a non-natural way of narration is used to bring to light the chain of events. Puppetry as an art form makes use of disseminating moral as well as social messages through a 'hypothetical' construction of time itself which again is branched into a subjective and an objective understanding of time. Paul Ricoeur also states that time becomes human to the extent that it is articulated through a narrative mode, and narrative attains its full meaning when it becomes a condition of temporal existence. The manner in which a tale is narrated and the narrated story itself are intricately linked with time.

The paper will, therefore, try to focalise around the concepts of time and space which are repeatedly moulded for the observer in the narratives of puppeteering.

## AG 10

### Discourse obligates – How and why discourse limits the way we express what we express (short AG)

Robin Lemke, Lisa Schäfer, Heiner Drenhaus & Ingo Reich

## Cleft sentences reduce information density in discourse

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Deciding how to realize a discourse move, a German speaker has the choice between a canonical sentence (1a) and an *es*-cleft (1b), among other options. In the context in (1), (1b) is the preferred option, while (1a) would be preferred if the context contained only the first sentence of (1).

(1) When Lena joined the coffee break, the plate of cookies was already empty. She couldn't find any other cookies, either. So she decided to go to the bakery. (Originally in German)

    a. ? Peter hat den letzten Keks gegessen.
           *Peter has the last cookie eaten*
           'Peter ate the last cookie.'
    b. Es war Peter, der den letzten Keks gegessen hat.
        *it was Peter who the last cookie eaten has*
        'It was Peter who ate the last cookie.'

Tönnis (2021) explains these differences as a discourse effect, arguing that the cleft is used to address a less expected question, in contrast to the canonical sentence. I assume an expectation-driven *Question Under Discussion* model where addressees form a probability distribution over questions that the ensuing utterance is likely to answer (c.f. Kehler & Rohde 2017). In (1), the addressed question *Who ate the last cookie?* is unexpected (hence the cleft preference), while the same question is expected after the first context sentence (hence the cleft dispreference). I propose an information theoretic take on the expectedness approach, following the uniform information density (UID) hypothesis (Levy & Jaeger 2007), and hypothesize the following: The cleft is used to reduce information density in order to achieve UID in the discourse. The additional material in the cleft, compared to the canonical sentence, reduces the higher information density, which is assumed to raise because a less predictable question is addressed.

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## Information theory and German intensifiers

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Some intensifiers are extremely frequent (*so*), others are infrequent, even new (*arsch* 'butt'), and seem to trigger a stronger intensifying effect than more common ones. In addition, the intensification can be further strengthened by "stacking" additional intensifiers before the first. In case of intensifier stacking, there is often a strong preference for one order over the others, as shown in (1), where the corpus attested order is much better than the unattested one (Richter & van Hout, 2020). We use two information theoretic notions to model the expressivity of an intensifier in a given sentence: the local (paradigmatic) information content of an intensifier $IC_{local}$ (Shannon 1948), and the transitional information an intensifier contributes, based on Markov transition probabilities, $IC_{trans}$. We confirm two hypotheses on a large corpus of intensified adjectives from German Twitter data (Scheffler 2014):

**Hypothesis 1:** Local information and transitional information are strongly anti-correlated: The more common an intensifier is, the less intense/expressive it is and the less it constrains following adjectives.

**Hypothesis 2:** Stackings of more than one intensifier are frequent and are used to increase the expressiveness of the intensification. Therefore, we predict that stackings prefer to occur in incremental surprisal order in predicative adjective phrases, as shown in (1a) over (1b), following the Uniform Information Density hypothesis (Jaeger & Levy 2007).

(1)  a.                                    b.

**References:** Jaeger/Levy (2007): Speakers optimize information density through syntactic reduction. *Advances in neural information processing systems*. • Richter/van Hout (2020): Ranking Dutch intensifiers. *Language and Cognition* 12(2). • Scheffler (2014): A German Twitter Snapshot. Proc. of LREC • Shannon (1948): A mathematical theory of communication. *The Bell system technical journal*, 27(3).

# Alternatives in broad-scope focus: Testing Rooth's theory on VP-constituents

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Speakers often choose to emphasise certain parts of their utterances by marking them as focused. According to Rooth (1992), what focus does is create an additional level of meaning for the focused element that consists of plausible alternative meanings to what is focused. Recent research has found that this formal theory can be applied to how focus is processed by comprehenders in real time (see Gotzner & Spalek, 2019 for an overview). However, psycholinguistic research on focus alternatives has so far only concentrated on cases of narrow focus (single focused words), while focus can also take a broader scope. We will present three probe recognition experiments that attempted to test whether focus alternatives to larger phrases (VPs) are activated and represented in the minds of comprehenders. Our probe recognition experiments testing this prediction were based on Gotzner et al. (2016), who found that comprehenders take longer to reject unmentioned alternatives to focused nouns compared to unrelated probes and that the presence of the focus particle only causes further interference. If comprehenders represent alternatives to both the verb and the noun within a focused VP this effect should be present in the rejection times of unmentioned alternatives to both as well. While we did find the predicted interference effect of only in Experiment 1, which tested alternatives to the nouns within focused phrases (e.g. poem for book in wrote the book), the effect was not present in Experiment 2, which targeted the verbs within the same phrases (read for wrote). This appears to be at odds with the Roothian-inspired processing account of alternatives. Finally, we will report the results of an ongoing Experiment 3, in which we probe whole alternative phrases (read the poem). We will compare and discuss the role of alternatives assumed in this approach to information theoretic frameworks.

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# How distributional contexts facilitate speaker alignment

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Numerous results show that language users are sensitive to the probabilistic structure of linguistic input. These findings imply that languages are probabilistic systems themselves. However, taken together with the irregular distribution of linguistic types in human communication, this presents a puzzle. Every individual speaker learns from a very different language sample, yet the suggestion that the processes underlying language use are probabilistic implies that the users of linguistic systems share models of their probabilities. How do speakers align their expectations?

Speakers learn words in contexts in which they are used. Recent results show that when communicative context is defined in terms of systematic patterns of co-occurrence between communicative events at various levels of description, lexical clusters discriminated by these contexts approximate the geometric distribution (Ramscar 2019, Linke & Ramscar 2020). A critical property of the geometric distribution is that its structure supports a transmission process that is unaffected by sample differences (Shannon 1948). These findings suggest that the sequential organization of linguistic codes optimizes the statistical structure of lexical distributions to maintain speaker alignment over time.

To examine the degree to which these results generalize to speech, we analyzed verb and noun distributions in the Buckeye Corpus of Conversational English, the US subtitle corpus and the spoken part of the British National Corpus. Our results show how differences in the average sequence position and grammatical constraints to the argument structure lead to differences in the subcategorization patterns in verbs and nouns, yielding sample invariant distributions at various levels of abstraction. We then show how distinct patterns of subcategorization interact with lexical productivity of word categories as the size of the sample and speaker experience grow.

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## What's at issue?  What's the point?

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Speakers make choices both about what to communicate and how to package what they want to say.  Both choices can be said to reflect the discourse goals of the speaker – their 'strategy of inquiry' and the implicit questions they aim to address as the discourse proceeds. As comprehenders, we are tasked with trying to recover what these intended messages and discourse goals may be; we use cues from the surface packaging to help understand what the speaker intends to emphasize as the main point and how this point connects to the rest of the discourse. The goal of this talk is to approach 'information' from these two sides: both our recovery of speakers' underlying message when their communicative goal is to be informative and our sensitivity to the way that message is packaged via the information structure of their utterances.

The first pair of studies I present tests the interplay of event portrayal and the identification of the underlying Question Under Discussion (QUD) that the next sentence will likely answer. Manipulating the operative QUD is in turn shown to influence which referent comprehenders expect will be mentioned next as the discourse proceeds. A second set of studies tests another way that different situation portrayal and information packaging can influence expectations about upcoming coreference. Comprehenders favor reference to information that has appeared sentence-finally and, depending on the type of embedding, in a matrix clause, suggesting that structural packaging guides expectations.

A final set of studies targets expectations for informativity, showing that expectations about the next word vary depending on the emphasis placed on a speaker's goal of communicating newsworthy/informative content. This expectation for informativity is further shown to permit additional pragmatic enrichments. When speech appears insufficiently newsworthy, comprehenders may reconcile this with speakers' presumed cooperativity by drawing further inferences beyond what was explicitly said.

# Producing referential expressions:
## No need for information theory

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Speakers can choose from a variety of more or less explicit referential expressions, as captured in various referential hierarchies. Furthermore, different referential expressions can be associated with different sentence positions (e.g., weak pronouns tend to occur in earlier positions than full NPs), which in turn can affect the order of arguments in languages with relatively free word order. We discuss whether the production of referential expressions is governed by information theoretic notions as proposed by e.g. Fenk-Oczlon (1989) or Levy and Jaeger (2006).

As for the choice of referential expressions, we reanalyzed several experiments. In one experiment (Bader & Portele, 2020), participants wrote a continuation sentence for short stories mentioning three referents. The first referent, the discourse topic, was taken up most often in participants' continuations and was thus least surprising. Nevertheless, pronouns were used less often for the discourse topic than for the subject referent of the final context sentence. This referent was mentioned least often in the continuations and was thus most surprising. These findings are at odds with information theoretic accounts of pronoun production but follow from structural accounts based on syntactic functions and distance.

As for the relationship between word order and referential expressions, corpus data and experimental studies show that German demonstratives (pronouns or NPs) preferentially occur sentence-initially, causing OS order when the object is a demonstrative. For example, in a choice experiment, participants chose the OS variant in 43% of all cases with a demonstrative object but in only 15% with a definite object. This finding is unexpected from an information theoretic point of view because the surprisal value of the object is independent of its referential form. We hypothesize that this finding is due to demonstratives preferring proximity to their antecedent.

**References:** Bader, M., & Portele, Y. (2019): The interpretation of German personal pronouns and d-pronouns. *ZfS*, 38(2), 155–190. • Fenk-Oczlon, G. (1989): Word frequency and word order in freezes. *Linguistics*, 27, 517–556. • Levy, R. & Jaeger, T. F. (2006): Speakers optimize information density through syntactic reduction. *Proc. of the 19th International Conference on Neural Information Processing Systems*, 849–856.

# Interpreting negated polar questions and tracking beliefs in online discourse processing

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Information structural cues such as word order are known to affect online language comprehension in context e.g. Kaiser & Trueswell (2004). However, negation seems to be at odds with this discourse predictability, with even highly predictable negated sentences harder to process than pragmatically equivalent assertions (Darley et al. 2020). So called *biased questions* are an interesting case where this relationship between negation and discourse expectations combine with expected information structural cues from the word order. Questions like (1a) are not said to correlate with any particular epistemic interpretation, while questions like (1b) are said to signal an existing belief of the relevant (positive) proposition.

(1) a.    Is there **not** a vegetarian restaurant around here?
    b.    Is**n't** there a vegetarian resaturant around here?

We report results from a self-paced reading experiment investigating whether known production preferences relating to the syntactic structure of the question (Domaneschi et al. 2017) lead to differences in their online processing. We show that in processing, the information structure of a negated polar question does not straightforwardly signal to the hearer that the upcoming utterance relates to a prior belief. Instead, we find that processing negated polar questions appears to be context-dependent, where the well-known difficulties in processing negation can be ameliorated in a context where there is a prior belief associated with the question – but this facilitation only arises at the end of the utterance.

**References:** Darley, E., Kent, C. & Kazanina, N. (2020): A 'no' with a trace of 'yes': A mouse-tracking study of negative sentence processing. • Domaneschi, F., Romero, M. & Braun, B. (2017): Bias in polar questions: Evidence from English and German production experiments. • Kaiser, E. & Trueswell, J. (2004): The role of discourse context in the processing of a flexible word order language.

# Information status investigated using surprisal: differences across syntactic roles and referential expressions in European languages

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The impact of information structure on word order has been an important topic in typology. Gundel (1988: 229) has proposed the *Given Before New Principle* (GBN) and the *First Things First Principle* (FTF). These principles compete for established topics and are resolved through the manipulation of word order. We aim to investigate the importance of GBN using data from a parallel corpus (Talamo & Verkerk in prep.) and surprisal (probability of a word in context). We hypothesize that surprisal can be used to quantitatively assess given vs. new information.

We study subjects and indirect/direct objects of transitive and ditransitive verbs, specifically, third person pronouns and names of human/anthropomorphic beings in a balanced sample of 20 European languages. While all languages of the sample are 'basic' subject-first languages, they show interesting variation regarding both information structure and word order: a) Irish and Welsh are verb-initial; b) Modern Greek has relatively free word order of core participants; c) Greek, several Romance and Balto-Slavic languages are pro-drop languages, and d) all languages vary in their object-fronting constructions. Our results shed light on the complex interplay between word order, syntax, and information structure from an information-theoretic perspective.

**References:** Gundel, J. (1988): Universals of topic-comment structure. In *Studies in syntactic typology*, 209-239. • Talamo, L. & Verkerk, A. (in review): A new methodology for an old problem: a corpus-based typology of adnominal word order in European languages.

# AG 11

## Adaptive linguistic complexity: readability, developmentally proximal input, alignment (short AG)

Detmar Meurers & Zarah Weiss

## Linguistic complexity – the more is not always the better

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Several SLA studies have focused on the relationships between linguistic complexity, task characteristics, and L2 development. Complexity is often assumed to grow over time, so that higher proficiency levels are seen as implying more complexity. However, this assumption needs to be qualified and further investigated. First, complexity does not grow at the same rate across linguistic sub-domains. While the lexicon may increase constantly over the life span, with no clear limit to the number of words being learned, morphology and syntax have 'ceilings' with respect to the maximal levels that can and should be achieved. Second, linguistic complexity varies across tasks and modalities, so that it is not always the case that 'the more, the better' - there are optimal levels of complexity, and sometimes more can actually mean worse.

This talk will first review previous literature discussing such issues, focusing on non-linear trajectories of complexity growth over time and across tasks. It will then present results of a longitudinal four-year study of adolescent learners of L2 Italian, who were involved in a variety of oral communicative tasks. A group of native speakers served as controls. The analysis looks at the complexity of telephone calls, a task that has not been extensively studied, demonstrating that the optimal degree of syntactic complexity depends on the tasks' interactional requirements. Higher levels of syntactic complexity compete with optimal levels of interactional complexity, that is, the need to rapidly exchange turns and to direct the interlocutor's attention. With higher proficiency, learners' syntactic complexity in this task tends to decrease, approaching native speakers' levels, while they develop more sophisticated interactional skills.

The conclusions are that complexity is indeed an 'adaptive' notion that varies across communicative situations, so that learners do not only have to learn how to be more complex, but how to tailor the complexity of their productions to specific pragmatic and discursive contexts.

# Language barriers for adolescents and adults with low literacy: A corpus of written texts used in professional education

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Previous research investigating professional language texts framed a set of barriers that occur in professional language – but not only there – and showed that the characteristics of professional language cause comprehension difficulties and affect readability on different linguistic levels.

In our study we focus on professional language in the domains *health and care* and *bakery/confectionery* that is used in textbooks in professional education contexts for adolescents and young adults with no or low graduation. We built up a corpus based on samples from the textbooks to facilitate the identification and analysis of language barriers and to answer the following questions: Are the texts already (partly) adapted to the reading skills of the target group? Or do the texts contain linguistic barriers? If so, what kinds of barriers can be found and how frequently do they occur? Considering previous research comprising various disciplines such as language teaching, German as a second language, Easy-to-Read, computational linguistics, and psycholinguistics, we identified about 40 (sub-)categories on the word, sentence and text level, and annotated them manually.

The corpus data will allow the quantification of barriers that were or were not described in previous work on professional language and on language in educational contexts. The data will further help to spot the phenomena relevant for simplification. In subsequent experiments, we will compare the readability and intelligibility of simplified and original texts to identify effective simplifications. The results will help to adjust the linguistic complexity of texts written for professional education.

# How to identify easy-to-understand constructions beyond the scope of '*Leichte Sprache*' (LS; easy-to-read German) by investigating treebanks of LS, spoken and written German

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*Leichte Sprache* (*LS*; easy-to-read German; Bredel&Maaß, 2016) comprises a small vocabulary and simplified syntactic constructions for barrier-free communication. The LeiSA project (Bock, 2019) identified a number of constructions as easy to comprehend that fall beyond the definition of LS. This leads to our research question: ***How to identify such constructions systematically?*** We employ a comparative treebank study into the frequency of syntactic constructions in a treebank of authentic LS text with 29,170 corpus graphs, and in the treebanks of spoken and written German. We argue that constructions with high frequencies in spoken German are easy to produce due to the time-pressured nature of speech production. In a written text, there is time to replace simple constructions with more complex ones. Thus, the written corpus serves as a baseline. The appearance of a given construction in spoken language with frequency higher than or equal to its appearance in written language is indicative of an easy-to-understand or unavoidable construction. Conversely, higher frequencies in written text imply difficult constructions employed under the non-time-critical conditions of revision and editing.

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[For the extended abstract: cloud.uni-koblenz landau.de/s/reWbSQ3W4FKrLHS]

# Modeling teachers' language adaptivity in GSL classrooms

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We present results of modeling the linguistic properties of authentic teacher-learner interactions in German as a Second Language (GSL) classrooms. Introducing learners to increasingly elaborate and variable language in their Zone of Proximal Development (Vygotsky, 1979) is essential for successful language acquisition. However, adapting language input to individual learners' proficiency levels presents challenges to teachers in heterogeneous learning groups and the extent to which teachers use their language in linguistically variable and adaptive ways in practice has rarely been investigated empirically, except for some work on native speakers' academic language acquisition (Kleinschmidt-Schinke, 2018; Weiss et al., 2022).

We address this research gap by studying the linguistic complexity of utterances in real-life classroom interactions using a corpus of multi-modal spoken teacher-student interactions that was elicited across ten GSL classrooms in the COLD project (www.die-bonn.de/cold). We analyze these data using our tool for broad linguistic complexity modeling that has been successfully used to characterize competence-adaptive GSL input, compare content-matter teachers' language across grades, and describe GSL productions across proficiency l evels (Weiss & Meurers, 2 019; Weiss e t a l., 2021, 2022). We present an outlook on questions such as if and how GSL teachers adapt their language in the classroom based on whom they address and which role factors such as learner proficiency and social form play in this.

**References:** Kleinschmidt-Schinke, K. (2018): *Die an die Schüler/-innen gerichtete Sprache (SgS): Studien zur Veränderung der Lehrer/-innensprache von der Grundschule bis zur Oberstufe*. Walter de Gruyter GmbH & Co KG. • Vygotsky, L. S. (1979): *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press. • Weiss, Z. & Meurers, D. (2019): Broad Linguistic Modeling is Beneficial for German L2 Proficiency Assessment. In *Widening the Scope of Learner Corpus Research*. Presses Universitaires de Louvain, 419-435. • Weiss, Z., Chen, X., & Meurers, D. (2021): Using Broad Linguistic Complexity Modeling for Cross-Lingual Readability Assessment. In *Proceedings of the 10th NLP4CALL Workshop*, 38-54. • Weiss, Z., Lange-Schubert, K., Geist, B., & Meurers, D. (2022): Linguistic Complexity in the Classroom: A Computational-Linguistic Analysis of the Spoken Language of Teachers and Learners in Science Education in Primary and Secondary Schools. In *Zeitschrift für Germanistische Linguistik*.

# ICALL offering individually-adaptive input: Effects of complex input on L2 development

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The Artificial Intelligence methods employed in Intelligent Computer Assisted Language Learning (ICALL) in principle makes it possible to individually support language learners. Second Language Acquisition (SLA) research and language teaching practitioners agree on the relevance of target language input adapted to the learner level. However, little systematic research has explored individually adapting input and how it impacts learners. Building on previous findings on apparent alignment between the complexity of learner input and their output (Chen & Meurers, 2019), the purpose of this study is to investigate how different challenge levels of adaptive input impact learners. We developed an ICALL system implementing a Complex Input Primed Writing task that selects texts for individual learners and ran an experiment grouping learners into four classes: no, low, medium, or high challenge in relation to the individual learners' writing complexity. The results show that learners generally were able to align to low- and medium-level challenges, producing more complex writings after receiving the adaptively challenging input, but less so for the high challenge group. The study demonstrates how an ICALL system used in a regular language learning context can support SLA research into adaptive input and complexity alignment.

**References:** Chen, X.B., & Meurers, D. (2019). Linking text readability and learner proficiency using linguistic complexity feature vector distance. *Computer Assisted Language Learning*, 32(4), 418-447, DOI: 10.1080/09588221.2018.1527358.

# Input for second language learners benefits from linguistic insights: The case of dative

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Recent approaches to language support in educational contexts agree that adaptivity is crucial for the effectivity of the language training (Geyer & Müller, 2021). Adaptivity concerns the type of language input offered in this environment. The input should be tailored to the needs of the learners by adapting it to their linguistic abilities and by promoting acquisition of specific linguistic phenomena in a developmentally proximal fashion (e.g., Voet Cornelli et al., 2020). We argue that this developmental perspective profits from considering the linguistic perspective on the often complex linguistic nature of the target phenomenon, hereby adding to its efficient implementation. We illustrate our argument with dative case marking in German and derive four implications for the ideal input, which considers insights from both linguistics and language acquisition research in a developmentally proximal and adaptive fashion.

First, language support for the acquisition of dative should take place after children have mastered accusative case. Second, the input should target a precise phenomenon, e.g., first dative in prepositional phrases, then dative in (di)transitive structures. Third, case marking should be illustrated initially by using nouns that the learners are familiar with; in particular, they should know the gender of the nouns given that case is marked in concert with gender and number. Fourth, focusing on specific case bearing elements such as definite determiners may help the learner because it increases the transparency. Only later should additional case bearing elements with less transparent case marking such as adjectives be added.

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# Employing criterial features for assessing text complexity

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We report on ongoing work which is part of a larger effort on assessing text complexity for classifying reading comprehension texts (henceforth study texts) for second language (L2) learners of German and Russian. In this talk we focus on the distribution of criterial features originally identified for English L2 learners (Hawkins & Filipović 2012). We discuss the transferability of features established for B1 English (i) from characterizing learner production to learner input, and (ii) across languages — from English to German and Russian; finally, (iii) we explore their distribution in study texts across different CEFR levels in order to estimate their discriminative power.

With regard to transferability, German and Russian are rewarding object languages due to their having morphological types in common. We will discuss the transferability of criterial features on the basis of case studies illustrating different degrees of constructional congruence across languages, from common constructions such as indirect WH-questions in finite clauses to minor morphological differences as in relative clauses formed on a genitive position and major structural difference such as the functional equivalences of English Subject-to-Object-Raising constructions. Based on frequency distributions of the German and Russian constructions in our corpora of study texts, we will discuss the status of criterial features for these constructions and factors influencing their status, such as their low overall frequency compared to other features used in feature-rich machine learning approaches (e.g. Weiß & Meurers 2018 for German; Reynolds 2016, Batinić et al. 2017 for Russian).

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## AG 12

# The graphematics/pragmatics interface (short AG)

Mailin Antomo, Nathalie Staratschek & Sonja Taigel

# On the interaction between typography and pragmatics. The case of newspaper headlines

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While the concept of a prosody/pragmatics interface is well-established in linguistics by now (Wharton 2012), and while recent years have seen a growing interest in the interaction between graphematics and pragmatics (Meibauer 2007), the interaction between typography and pragmatics is still under-researched. Pragmatics, understood as the study of utterance meaning, traditionally focuses on utterances (sentences), yet "not many typographic events happen within the sentence" (Waller 1996: 346).

In this talk, I will argue that not only graphematic, but also typographic means may be systematically connected to pragmatic functions both on the level of the sentence (the content structure of the text), and on the level of the document (the operational structure of the text), and that in order to systematically describe these interconnections, a theory of the typography/pragmatics interface is needed.

As a case in point, I will focus on newspaper headlines. The typographic properties of headlines will be described in detail, and it will be argued that they function as illocutionary indicators, guiding readers in their interpretation of the headline as a pointer to the topic of the subsequent text. In the case of sentential headlines, this will lead to a double illocutionary structure, consisting of a grammatically and a typographically induced illocution. In a more general perspective, I will discuss the question whether typographic acts – such as the typographic marking of a headline– can be regarded as speech acts in the sense of speech act theory (Austin 1975).

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# Expressive Punctuation!?!! Punctuation between grammar(?) and pragmatics!

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Whereas the use of most punctuation marks is thought to be governed by grammatical rules, some punctuation marks can be used in a more expressive, pragmatic way that rather reflects emotions and/or attitudes of the writer instead of grammatical properties. For instance, while exclamation marks are usually grammatical indicators of the sentence type "exclamative", they can be used with non-exclamative sentences like plain declarative clause to nevertheless indicate the writer's surprise. Similarly, exclamation points can co-occur with question marks in order to indicate a certain kind of bias and/or surprise.

In this talk, we will discuss the distinction between grammatical and expressive, pragmatic punctuation and suggest that pragmatic punctuation marks exhibit certain features that the more grammatical punctuation marks do not: They can be repeated to intensify their effect, they can occur rather freely inside a sentence, they expresses an attitude of the speaker, and they can be combined with other (pragmatic) punctuation marks.

Comparing commas and exclamation points illustrates the difference between grammatical and pragmatic punctuation marks. Commas cannot be repeated, they only occur in syntactically determined positions, they do not express any attitude, and they cannot be combined with other punctuation marks to express composed attitudes. This contrasts with exclamation points. They can be repeated at will to intensify the emotional involvement of the writer, they can occur inside a sentence to target the expression before it (with or without parentheses), and they can be combined with questions marks, for instance, to yield a complex combined attitude.

We will investigate the most common punctuation marks with respect to these properties and assign them a place at what may be called the grammar-pragmatics continuum of punctuation. We will also argue that pragmatic punctuation exhibits a lot of the hallmarks of non-at-issue, expressive meaning and hence may be called expressive punctuation. We will conclude with a comparison between expressive punctuation and emoji which can be used to fulfil similar roles.

## Starstruck – An experimental study on the graphemic representation of gender neutrality in German

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We report on an acceptability judgment study aimed at establishing the interpretation of anaphoric expressions dependent on two types of antecedents: (i) NPs in the so-called "generic masculine", and (ii) NPs exhibiting the "gender star" (Gendersternchen). Items ($n = 24$) of the following kind were judged by 24 subjects:

(1) a.  Die *Musiker* wollten ein Stück von Mozart spielen, und einige der Männer trafen dabei die Töne nicht.

b.  [Same as (1a)] … , und einige der Frauen … [as in (1a)].

c.  Die *Musiker\*innen* wollten ein Stück von Mozart spielen, und einige der Männer trafen dabei die Töne nicht.

d.  [Same as (1c)] … , und einige der Frauen … [as in (1c)]

(Approximate translation: The musicians wanted to play a piece by Mozart, and some of the [men/women] didn't hit the right notes.)

We predicted an interaction of the factors: feminine anaphors picking up a generic masculine (1b) should be judged worse in comparison to masculine anaphors (1a), while, if the gender star facilitates an gender inclusive interpretation, there should be no such difference between (1c) and (1d).
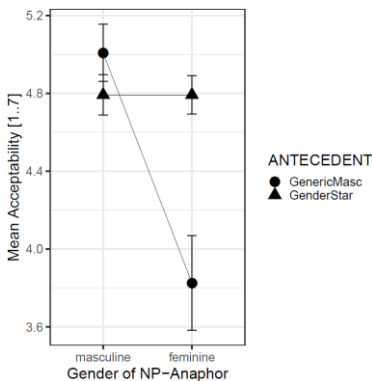


This prediction was born out by the data. We take this to mean that gender-starred antecedents do indeed induce a more gender-inclusive interpretation. We discuss additional correlates of this effect, among them gender biases in the scenarios, as well as sociographic variables, e.g. age of the participants.

# What's in a kiss? The pragmatics of orthographic kisses in UK CMC

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The use of the *x* to indicate a kiss has a long history in personal letter writing. It is traditional in the UK to sign greetings cards with a number of kisses, usually after the name. The use of *x* has become increasingly common in various forms of CMC, and apparently in a broader range of contexts than the traditional written usage. Communication via new technologies encourages the evolution of the conventional norms of opening and closing letters to behaviours more appropriate to those technologies.

This usage has been the focus of press and social media attention for some years, particularly in the UK, although the New York Times published an article about its increasing use in the US. The use of *x* seems to be a phenomenon that is culturally salient in the UK, in particular. So how and why do British people use the *x*?

This paper examines the use of *x* in CMC as evidenced by three datasets. The first is a corpus-based study of the IM use of two age groups (15-16 and 21-23); the second involves interviews with the users about their use of *x* and the third involved a questionnaire asking 567 people of all ages about their use of and attitudes to *x*. We find that:

- the primary function of the orthographic kiss is still in line with its use in written letters and greetings cards;
- it has other discourse functions relating to both face/politeness and emotive function;
- different people use it for different functions, leading to confusion, misunderstandings and even offence.

The findings of the studies are considered in relation to questions of politeness and 'face', as developed by Spencer-Oatey (2007) and the emotive functions defined by Danesi (2017). The results are also compared to preliminary results of an updated survey.

**References:** Spencer-Oatey, Helen. (2007). Theories of identity and the analysis of face. *Journal of Pragmatics* 39(4), pp. 639-656 • Danesi, Marcel. (2017). *The semiotics of emoji: The rise of visual language in the age of the internet*. London: Bloomsbury.

## What we mean when we use air quotes

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Quotation theory, in general focussing on written use, has been applied to spoken contexts to a certain extent. Air quotes in the visual-auditive modality as well as their counterparts in purely auditive modalities on the other hand have only been targeted in passing. The talk will try to give an account of the characteristics of such instances of vocal quotation and examine if they exhibit the same possible uses of quotation that have been identified for written contexts. The analysis of Gutzmann/Stei (2011) which the authors deem to be easily applied to these instances of quotation states that the latter marks and blocks stereotypical interpretations of the thus labelled material and evokes the inference of alternative ones. Should this theory explain the phenomenon more accurately than a modification theory, which possibly would have to renounce Recanati's (2009) claim that the quoted material's sense may not be altered by the act of quotation? Two uses of a broader range in written quotation seem to be dominant with instances of air quotes and a general direction for potential inferences identifiable. Air quotes seem mainly to either indicate that the speaker deems the quoted term as not really applicable or even as condemnable. The question of applicability may arise from diverging specifications of semantic features in contrast to conventionalised meaning. The pragmatic aspect of inference would touch upon a semantic dimension, when an addressee is supposed to recognise which feature of the item is supposedly not in accordance with its lexicalisation. Air quotes may furthermore indicate that the term is not only not judged as accurate but as condemnable for different reasons (e.g. political correctness, social context). In these instances no inference concerning specific aspects of meaning is intended. The inference can be interpreted as rejection of the quoted material as appropriate, while initiating additional implications concerning the reasons for such a rejection. The talk will try to integrate these phenomena into quotation theory.

**References:** Gutzmann, D. / Stei, E. (2011): How quotation marks what people do with words. *Journal of Pragmatics* 43(10), 2650–2663. • Recanati, F. (2009): Open Quotation Revisited. *Philosophical Perspectives*. Wiley, 399–427.

# (Inter-)subjective discourse functions of emoji in instant messaging

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Previous studies identified a range of pragmatic functions of emoji, from conveying emotions to guiding the addressee's understanding of a message to softening (cf. Baron & Ling 2011, Beißwenger & Pappert 2019, Dainas & Herring 2021). We take a step further and argue that non-referential emoji can be analysed as discourse markers, and their functions can be captured as textual, subjective or intersubjective (Wiese & Labrenz 2021).

In our paper, we corroborate this perspective and present new insights into dominance relations between these different discourse functions. We present results from two studies: (1) a corpus study based on instant messages from the RUEG corpus (Wiese et al. 2019) produced by adolescents and adults in Germany; (2) an experimental perception study on functional interpretations of emoji.

In the corpus study, we analysed the contextual embedding of emoji to study their pragmatic contribution. Results suggest a combination of subjective and intersubjective functions. In order to disambiguate between those functions, we conducted a perception study on short, constructed text messages containing emoji. Results indicate a dominance of subjective functions with additional intersubjective functions. Inter-individual variation indicates a large variability in the interpretation of emoji.

Taken together, our results support multifunctional approaches to the meaning of emoji and underline their pragmatic flexibility and versality. Methodologically, they support an integration of corpus studies with experimental approaches.

**References:** Baron, N. & Ling, R. (2011): Necessary Smileys and Useless Periods. *Visible Language* 45, 45-67. ● Beißwenger, M. & Pappert, S. (2019): How to be polite with emojis. *European Journal of Applied Linguistics* 7(2), 225-254. ● Dainas, A. R., Herring, S. (2021): Interpreting Emoji Pragmatics. In: C. Xie et al. (eds.) *Internet Pragmatics: Theory and Practice*. Amsterdam: Benjamins, 107-144. ● Wiese, H. & Labrenz, A. (2021): Emoji as graphic discourse markers. Functional and positional associations in German WhatsApp® messages. In: D. van Olmen & J. Šinkūnienė (eds.) *Pragmatic Markers and Clause Peripheries*. Amsterdam: John Benjamins, 277-300. ● Wiese, H. et al. (2019): RUEG Corpus (Version 1.0) [Data set]. Zenodo. http:doi.org10.5281 zeno-do.3236069.

# "To underline tone and point" – a Danish survey of reasons for using emojis

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In digital interaction, emojis have been integrated into our everyday social practices and our multimodal meaning making (Cramer et al., 2016; Dainas & Herring, 2021). They are not just tools, but social and pragmatic artefacts that often function as a form of guidance as to how one should comprehend a post, i.e., by shedding light on the intentionality of the post and thus helping to avoid misunderstandings and gain a more thorough impression of the sender's communicative purpose. Using emojis in communication underlines the fact that our way of understanding both each other and the world surrounding us does not depend on words alone.

In our study of the use of emojis, we have performed two online surveys, one in 2016 (710 respondents) (Hougaard & Rathje, 2018) and one in 2021 (639 respondents), where the respondents answer questions about both their general use of emojis, their opinion about emojis as a communicative phenomenon, and of specific emojis and functions. The answers to the questions that focus on different reasons for using emojis, related to politeness, ease of use, emotionality (Riordan, 2017), implications, and punctuation (Dürscheid & Siever, 2017), show that the respondents use emojis because they are fun and simple markers of emotional state and because they explicate what the writer had in mind. Politeness and speed of writing is not as important as we presumed. One of our hypotheses regarding age and emoji use were that emojis are used more by adolescents than middle- aged and elderly people, and that some of the differences in use could be explained as having to do with the age of the respondents (the respondents were 10 – 70+ years old), but our results show a more complex situation. This and other explanations of the role that emojis play in our everyday communication will be outlined and discussed.

**References:** Cramer, H., Juan, P. d., & Tetreault, J. (2016): Sender-Intended Functions of Emojis in US Messaging. *Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services*. • Dainas, A., & Herring, S. C. (2021): Interpreting emoji pragmatics. In *Internet pragmatics: Theory and practice*. • Dürscheid, C., & Siever, C. M. (2017): Jenseits des Alphabets – Kommunikation mit Emojis. *Zeitschrift für germanistische Linguistik 45*(2), 256-285. • Hougaard, T. T., & Rathje, M. (2018): Emojis in the Digital Writings of Young Danes. In *Jugendsprachen*, 773-806. • Riordan, M. A. (2017): Emojis as Tools for Emotion Work: Communicating Affect in Text Messages. *Journal of Language and Social Psychology*, *36*(5), 549-567.

## Pre-typographic graphematic/pragmatic competence:
## An analysis of an early modern Japanese calligraphic style

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The multi-script Japanese writing system has received graphematic attention primarily in two areas: its early development up to the 12th century, and the sociolinguistics of typographic and post-typographic script. Writing in Japan between those points tends to be considered under an art historical rubric as 'calligraphy', according the graphematic flexibility of brush-written text merely aesthetic meanings.

Research into *nyohitsu* ('the woman's brush'), a specific form of handwriting popularised during the eighteenth century, problematises this conception, with the traditional understanding of *nyohitsu* as an aesthetic choice directly indexing gender increasingly untenable. This paper argues that it is better understood as a high-affect, multimodal form that, through lexical and syntactic as well as graphemic and other visual choices, produced pragmatic effects.

Based on metadiscourse from primary sources, this paper will argue that *nyohitsu* could express politeness, intimacy and warmth – or coolness, social distance and emotional detachment – through visual means such as non-alignment and non-linear reading paths, as well as graphemic connection, extension and abbreviation. Such multimodality, it will be suggested, allowed the intensification or attenuation of pragmatic meanings, enabling men as well as women to structure and navigate their social relations through mastery of the brush.

The eighteenth century *nyohitsu* manuals that initiated this research project may have promoted 'calligraphic' skill, but more importantly for the present paper, such books trained their readers in an elite and graphematic form of pragmatic competence.

# AG 13
## Interpunktion verpflichtet (short AG)

Marcel Schlechtweg & Nanna Fuhrhop

# Schrift und Wahrheit: Das Rufzeichen als lexikalischer Operator für Verum

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Im gesprochenen Deutsch bildet Verum-Fokus wie in *Es HAT geschneit* den Standardfall für Verum: Betont wird die Wahrheit einer kontroversen Proposition; s. Gutzmann et al. (2020). Im Vortrag möchte ich das Rufzeichen als lexikalischen Operator für Verum analysieren; s. die Verwandtschaft von Verum-Fokus und Rufzeichen bei Befangenheitsfragen sowie Widerspruch:

(1) a.   Hat es wirklich geschneit?   – Ja, HAT es. / Ja, hat es!
　　b.   Es hat nicht geschneit.       – Doch, HAT es. / Doch, hat es!

Allerdings ist nur das Rufzeichen in sog. Out-of-the-blue-Kontexten erlaubt, s. (2a) (nach Gutzmann et al. 2020: (24a)) vs. (2b). Zu klären ist auch der Umgang mit Expressiva wie *Igitt!*, denen ein Verum-Fokus-Pendant fehlt.

(2) a. # Hast Du es schon gehört? Grace SCHREIBT ein Buch.
　　b.   Hast Du es schon gehört? Grace schreibt ein Buch!

Ich schlage vor, dass das Rufzeichen den Verum-Bezug mit Verum-Fokus teilt, jedoch einen höheren Skopus hat und damit nicht die propositionale, sondern die aktionale Ebene betrifft; s. (3) mit *wa* für eine Schreibaktvariable und WUD für Writing Acts Under Discussion. ((3) baut dabei auf dem Vorschlag für Verum-Fokus nach Gutzmann et al. 2020: (113) auf.)

(3)　$[\![!]\!]^{u,c}(wa) = $　felicitous, if the speaker in $c$ wants to prevent that WUD($c$) is downdated with *wa* does not happen

Im Kern führt (3) dazu, dass die Schreiberin ihre Schreibhandlung als besonders auszeichnet. Motiv für die Auszeichnung kann – in Analogie zum Verum-Fokus, s. (1) – der kontroverse Status einer unterliegenden Proposition sein; es kann aber auch – s. (2) oder *Igitt!* – die Handlung als solche sein, deren Wahl relativ zu ihrer Nicht-Wahl hervorgehoben wird.

**Literatur:** Gutzmann, Daniel, Katharina Hartmann & Lisa Matthewson (2020): Verum focus is verum, not focus: Cross-linguistic evidence. In: *Glossa* 5(1), 1–48.

# Das Semikolon als Kohäsionsmittel

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Das Semikolon gehört zu den marginalen Interpunktionszeichen, da sein Gebrauch in keinem Kontext obligatorisch ist. Jedoch tritt es in spezifischen syntaktischen Strukturtypen auf (Schreiber 2020) und ist charakteristisch für eher formelle Schreibregister (Sanchez-Stockhammer 2016).

Der Vortrag befasst sich mit der textlinguistischen Funktion des Semikolons. Basierend auf einer Korpusstudie in der überregionalen Pressesprache (Gillmann 2018) zeige ich, dass es als unterspezifiertes Kohäsionsmittel in asyndetischen Sätzen dient. Es verbindet zumeist Hauptsätze, die in einer engen Kohärenzbeziehungen stehen. Die verknüpften Ereignisse sind häufig unter einem gewissen Gesichtspunkt semantisch ähnlich oder gleichwertig oder das zweite Konnekt begründet oder erklärt eine vorangehende Proposition (vgl. 1). Diese enge Kohärenz wird jedoch nicht durch einen Konnektor, sondern durch das Semikolon markiert. Sie zeigt sich auch in Referenzketten, die sich über beide Sätze erstrecken.

(1)  Die meisten haben damals noch keinerlei Vorstellung von der Realität des Krieges; ihre Erwartungen sind durch die "Blitzkriege", durch ein taumelhaftes Siegesgefühl geprägt. (Z11/JAN.00175 Zeit, 13.01.2011)

Vor dem Hintergrund dieser Ergebnisse scheint es vielversprechend, auch den Gebrauch anderer Interpunktionszeichen wie Doppelpunkt oder Gedankenstrich korpuslinguistisch zu untersuchen und auf mögliche textlinguistische Funktionen hin zu überprüfen.

**Referenzen:** Gillmann, M. (2018): Das Semikolon als Kohäsionsmittel. Eine Korpusstudie in der überregionalen Pressesprache. *ZGL* 46/1, 65–101. • Sanchez-Stockhammer, C. (2016): Punctuation as an indication of register. Comics and academic texts. In *Variational Text Linguistics. Revisiting Register in English*. De Gruyter, 139–168. • Schreiber, N.H. (2020): *Die Syntax des Semikolons. Von links ein Punkt – nach rechts ein Komma*. J.B. Metzler.

# „Punkt-Punkt-Punkt" <…> in Instant Messaging

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Digitale soziale Medien sind eine Domäne informeller Schriftlichkeit, in der der Einfluss standardorthographischer Normen stark reduziert ist. Dies bringt eine besondere Dynamik mit sich, die Variation und Wandel gerade auch im Bereich der Interpunktionszeichen begünstigt (Dürscheid 2020). Wir stellen Ergebnisse zu Verwendung und Funktion des <…>-Zeichens („Punkt-Punkt-Punkt") in Instant Messaging vor, die solche Dynamiken beleuchten.

In der Standardorthographie ist <…> als „Auslassungszeichen" charakterisiert, das Unvollständigkeit anzeigt; darüberhinaus kann es implizit Abzuleitendes andeuten, Zögern ausdrücken, Fortsetzung signalisieren oder Textteile verbinden und hierbei pragmatische Explikaturen oder Implikaturen aktivieren (Meibauer 2019). Die Auslassungsfunktion von <…> kann in digitaler Schriftlichkeit fast völlig zurücktreten zugunsten der Segmentierungsfunktion äußerungsmedialer Verwendungen und der Anzeige von Nichtabgeschlossenheit durch äußerungsfinale Verwendungen (Androutsopoulos 2020).

Wir diskutieren Befunde aus dem RUEG-Korpus (Wiese et al. 2020), das unter anderem WhatsApp-Nachrichten Jugendlicher und Erwachsener aus verschiedenen Sprachen (Deutsch, Englisch, Griechisch, Russisch, Türkisch) und Sprachkonstellationen (Majoritäts- vs. Heritage-Sprache) versammelt. Wir argumentieren für eine Einordnung von <…> als Diskursmarker mit subjektiven, intersubjektiven und textuellen Diskursfunktionen und schlagen eine Modellierung vor, die die verschiedenen Funktionen aus der kanonischen Verwendung von <…> als Auslassungsanzeiger ableitet und zu einander in Bezug setzt.

**References:** Androutsopoulos, J. (2020). Auslassungspunkte in der schriftbasierten Interaktion. *Register des Graphischen*. De Gruyter, 133-158. • Dürscheid, C. (2020). Zeichen setzen im digitalen Schreiben. *Register des Graphischen*. De Gruyter, 31-51. • Meibauer, J. (2019). How omission marks mark omission … *Punctuation in Context*. Lang, 67-83. • Wiese, H., et al. (2020). The RUEG corpus. 10.5281/zenodo.3236069

# Quotes and pure quotation in English: Evidence from a reading-time study

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Generally speaking, expressions can be used with their usual denotation, as in (1a), or mentioned, i.e., used metalinguistically (see 1b). Cases as the one illustrated in (1b) are referred to as pure quotation. Pure quotations, as quotations in general, are often marked with quotes (1c).

(1) a.  *France is a country in Europe.*
    b.  *France is a word.*
    c.  *"France" is a word.*

While the semantics and pragmatics of quotation and quotes are by now well understood (for an overview, see, e.g., Schlechtweg & Härtl 2020), much less is known about whether and how quotes affect the processing of an expression in a sentence. In the present paper, we continue in the spirit of earlier experimental work (see, e.g., Schlechtweg & Härtl 2020; Schlechtweg & Härtl 2021) and examine the role of quotes, with a particular focus on pure quotation this time. We discuss the results of a reading-time study in which native speakers of English were exposed to sentences containing pure quotations and analyze (a) the role of quotes in pure quotations (e.g., *Wine is a word.* versus *"Wine" is a word.*) and (b) their potential interplay with morphosyntactic characteristics of the sentence in which they occur (e.g., presence versus absence of an agreeing verb, cf. *"Wine" is a word.* versus *"Birds" is a word.*). We discuss the results against the background of previous empirical research and in connection to the semantic and pragmatic status of quotes.

**References:** Schlechtweg, M. & Härtl, H. (2020). Do we pronounce quotation? An analysis of name-informing and non-name informing contexts. *Language & Speech* 63(4), 769–798. • Schlechtweg, M. & Härtl, H. (2021). Quotation marks and the processing of irony in English: Evidence from a reading-time study. Submitted.

# The interplay between quotation and referentiality: An empirical investigation into name-informing constructions

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Name-informing constructions (NIC) as in (1) point to linguistic shapes and inform the addressee about the name of a lexical concept. While the denotational quotational construction in (1a) may be accompanied by a determiner, the metalinguistic quotation in (1b) blocks the use of an article.

(1) a.    This piece of writing is commonly called (a) "short story".
    b.  * A "short story" has 13 syllables.

There is evidence from a corpus study in German that in NIC with the verb *nennen* ('call') quotes occur significantly more often when the mentioned nominals are preceded by a determiner (Härtl 2020). This can be interpreted as a pragmatic mechanism where the use of quotes serves to compensate the denotational interpretation the determiner indicates by highlighting the mentioned expression's metalinguistic status.

To investigate the individual differences that determiner use induces in NICs, we focus on name-informing constructions in English systematically using the *enTenTen20* corpus. Our extraction examines constructions using the naming-informing predicate *call* following the pattern given in (2). We predict that the difference in referentiality will also be reflected in how NIQs with an article occur more frequently.

(2) a.    W (also) calls X (also) "Y". / X is (also) called (also) "Y".
    b.    X is (also) called (also) a "Y". / W (also) calls X (also) a "Y".

Our results will be discussed in light of the debate about referentiality levels occurring in quotational constructions. NICs will further be set into relation and contrasted with the type of mixed quotation.

**References:** Härtl, Holden. 2020. Referring nouns in name-informing quotation: A copula-based approach. In Michael Franke, Nikola Kompa, Mingya Liu, Jutta L. Mueller & Juliane Schwab (eds.) *Proceedings of Sinn und Bedeutung* 24(1), 291-304. U Osnabrück / HU Berlin.

# Punctuation in German 19th- and early 20th-century patient letters

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In the 19th century, the treatment of mental health problems became institutionalised, and several psychiatric hospitals were founded all over Europe (Schiegg 2019). The texts of this corpus study, stored in the patients' files due to the censorship practice common at that time, date from this period. In this study of 154 texts from 11 different patients, I analysed the use of the 12 punctuation marks defined by Bredel (2011): <. , ; : ! ? "" () - - ' ...>.

Besides patients' autographs, the files also contain letters written by relatives or friends addressed to either the patient or the institution. Hence, these in-letters provide an excellent point of reference to the texts written by those who were considered mentally ill, given that the educational background of relatives is comparable.

By examining 11,662 tokens, I found that the use of some punctuation marks is influenced by the writer's educational level; differences can also be observed in terms of audience design.

At the DGfS 2022 Punctuation Workshop, I will present my findings on the use of three rather marginal punctuation marks: hyphen, quotation marks, and apostrophe. In which functions were they used? To what extend were they used consistently? What influence did the educational level of the writers and the type of addressee have? In addition to these results, I will also show some examples of creative punctuation by individual writers.

**References:** Bredel, U. (2011): Interpunktion. Winter. • Gallmann, P. (1985): Graphische Elemente der geschriebenen Sprache. Grundlage für eine Reform der deutschen Orthographie. Niemeyer. • Schiegg, M. (2019): Patient Narratives as Distorted Mirrors. Letters from a Nineteenth-Century Psychiatric Hospital. In: Urban Microcosms (1789-1940). imlr books 13, 239–256.

# Gebrauch und Reflexion des Gedankenstrichs im 18. Jahrhundert

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Die Ausbreitung und frühe Reflexion des Gedankenstrichs ist eines der interessantesten Phänomene der Interpunktionsgeschichte, insbesondere aus kulturhistorischer Sicht, da dieser Vorgang mit tiefgreifenden geistesgeschichtlichen Wandlungen korrelierte. Diese Dimension soll im Vortrag thematisiert werden, wobei vornehmlich zwei Ziele verfolgt werden:

i) Es wird skizziert, wie sich der Gedankenstrich in der deutschen Sprachkultur etablierte, wobei auch geistes-, und mediengeschichtliche Hintergründe reflektiert werden.

ii) In exemplarischer Form werden ältere theoretische Reflexionen dieses Zeichens vorgestellt, insbesondere die frühen Versuche, dieses ins System der Interpunktionslehre einzugliedern. Diese Versuche waren insofern geradezu delikat, als der Gedankenstrich in seiner Frühphase ein ‚rebellisches' und ‚irrationales' Zeichen war, sodass die frühen Reflexionen als Bemühungen verstanden werden können, den Gebrauch dieses Zeichens zu ‚zähmen'. Es soll gezeigt werden, dass diese Spannung in den älteren Lehren ihre Spuren hinterlassen hat.

# Der gegenwärtige Gedankenstrichgebrauch

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Gallmann (1996: 1463, 1465) bezeichnet den Gedankenstrich innerhalb graphematischer Sätze als textsemantischen Marker. Dementsprechend liegt es nahe, den gegenwärtigen Gedankenstrichgebrauch, wie es Gillmann (2018) für das Semikolon tut, im Rahmen einer Korpusuntersuchung textlinguistisch zu analysieren. Für (1) und (2) können beispielsweise die Diskursrelationen *Kontrast* und *Einschränkung* (vgl. ebd.: 82f.) angenommen werden. Interessanterweise steht in (1) kein Konnektor, der die Diskursrelation anzeigt, in (2) hingegen *aber*.

(1) Heute wäre das ein Abenteuer […] — damals war das lebensbedrohlich. (Zeit, 07.01.2018)

(2) Was Amerika mit viel Glück gelang, können viele andere Staaten — aber vermutlich nicht alle — heute […] erreichen. (Zeit, 08.01.2018)

Der gegenwärtige Gedankenstrichgebrauch ist bisher empirisch nicht beschrieben: Masalon (2014) findet in seinem Korpus für das 21. Jh. (2012) lediglich zwölf Belege und Baduschs (1981) Analyse liegt schon 30 Jahre zurück. In welchen Konstruktionen und Funktionen taucht der Gedankenstrich gegenwärtig auf? Gehen mit formalen Varianten auch funktionale Unterschiede einher? Um diese Fragen zu beantworten, werden Gedankenstrichbelege aus dem ZEIT-Korpus nicht nur textlingustisch (Diskursrelationen, Kohäsionsmittel), sondern auch syntaktisch (u.a. Phrasentypen der Konnekte) und formal (u.a. einfacher vs. paariger Gedankenstrichgebrauch) analysiert.

**References:** Badusch, R. (1981): Einige Gedanken über den Gedankenstrich. In: *Sprachpflege* 30(11), 161-164. • Gallmann, P. (1996): Interpunktion (Syngrapheme). In: Günther, H./Ludwig, O. (Hgg.): *Schrift und Schriftlichkeit*. De Gruyter, 1456-1467. • Gillmann, M. (2018): Das Semikolon als Kohäsionsmittel. In: *ZGL* 46(1), 65-101. • Masalon, K. (2014): Die deutsche Zeichensetzung gestern, heute — und morgen (?). Dissertation Duisburg-Essen.

# Die Länge der horizontalen Striche

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Es gibt zwei horizontale Striche unter den Interpunktionszeichen, der kürzere Divis und der längere Gedankenstrich. Der Divis ist ein Wortzeichen und kann drei unterschiedliche Funktionen übernehmen. Er kann als Bindestrich, als Trennstrich am Zeilenende oder als Ergänzungsstrich stehen. Auch der Gedankenstrich ist polyfunktional. Er steht als Trenn- gedankenstrich und signalisiert dann einen Abbruch der syntaktischen Verrechnung („Karl hatte das Geld – gestohlen.", Bredel 2011:44). Oder er steht als Bindegedankenstrich und markiert einen Themen- oder Sprecherwechsel.

Dieser vielfältigen funktionalen Ebene der horizontalen Striche steht eine recht eingeschränkte formale Seite gegenüber. In der Druckschrift kommen vor allem zwei Formen von horizontalen Strichen vor, die sich in ihrer Länge unterscheiden. Der Divis wird durch ein Viertelgeviert- strich realisiert (<->), der Gedankenstrich durch einen Halbgeviertstrich (<–>). Den mindestens fünf Funktionen stehen damit in der Druckschrift nur zwei Formen gegenüber.

In Handschriften sind die horizontalen Striche jedoch nicht auf zwei Varianten beschränkt. Nahezu jede Länge ist denkbar. Die Frage ist, ob die funktional unterschiedlichen horizontalen Striche auch formal unter- schiedlich realisiert werden. In einem Korpus aus 100 handgeschriebenen Abituraufsätzen soll die Länge der horizontalen Striche erfasst und in Bezug zur Funktion der Striche gesetzt werden. Dazu wird jeder hori- zontale Strich gemessen und mit der durchschnittlichen Buchstabenbreite der jeweiligen Schrift verglichen. Anschließend wird geprüft, ob sich die Durchschnittslängen der Striche pro Funktion unterscheiden.

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# AG 14

## (Why) is language (not) rhythmic? (short AG)

Lars Meyer & Antje Strauß

# Testing prerequisites of neural entrainment and its functional limitations for speech processing

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Accumulating evidence shows that auditory cortex is tracking rhythmic fluctuations of the speech signal, often framed as entrainment. The underlying mechanism, resonance or entrainment, and its functional significance, however, are still unclear. Whereas some studies associate oscillatory phenomena with the entrainment to the syllabic rhythm and its strength to more or less successful speech comprehension (Peelle et al., 2013), others could show that it is a purely acoustic epiphenomenon or network intrinsic resonant characteristic.

In this talk I am going to summarize evidence of two studies, where we probed several prerequisites of the proposed envelope-entrainment model for speech processing (Giraud & Poeppel, 2012). First, we tested whether we would find traces of oscillatory behavior in the theta frequency range (3-8 Hz) in primary auditory cortex by means of EEG. We were able to reconstruct the Arnold Tongue for theta oscillations (Notebohm et al., 2016). Interestingly, the individual theta peak frequencies were weakly correlated with individual speech rates. Second, we tested whether entrainment is modulated by speech regularity and whether entrainment scales with comprehension of speech in noise irrespective of speech regularity. We found that intelligibility is better for natural than isochronous speech timing (Aubanel et al., 2016), whereas brain-audio coherence is stronger for isochronous sentences. Notably, beta oscillations are more precisely aligned post P-centers in natural speech pointing towards some limitations of a speech processing model focusing on theta oscillations only.

Together, these results suggest that envelope entrainment could be a potential accompanying mechanism of speech processing. Its functional role in the optimization of linguistic processes, however, remains to be further determined.

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## A role for rhythm in speech intelligibility

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While many measures of speech rhythm focus on the relative proportion or duration of various phonological units, the characterization of rhythm in the acoustic signal is less well known. Specifically, how does the temporal patterning of acoustic landmarks that arise from low rates of amplitude modulation (AM) in the speech envelope contribute to the rhythm percept and influence speech processing? We explore temporal regularity at a timescale above the level of the syllable, within a frequency range of about 2-3 Hz. Using Tilsen and Arvaniti's (2013) rhythm stability metric that tracks the variation of AM rates over time, we calculated rhythm indexes for each utterance in a corpus of read sentences. Participants listened to the sentences embedded in noise at two signal-to-noise ratios (SNR) and transcribed what they heard. The main finding of interest was an effect of rhythmicity that emerged in the lower SNR condition. Sentences with more regularly spaced amplitude peaks (i.e. a more stable AM rate) were more accurately recognized than sentences with irregular rhythm. This finding suggests that regular AM facilitates speech intelligibility in noise. In addition, it supports an approach that quantifies gradient rhythmicity in the speech signal with amplitude peaks as acoustic units that exhibit rhythmicity (to a greater or lesser degree). Overall, the results are consistent with models of speech perception that take neural oscillators (specifically, delta oscillations) phase-locking to amplitude fluctuations in the signal as a mechanism underlying the neurological processing of speech.

**References:** Tilsen, S., & Arvaniti, A. (2013): Speech rhythm analysis with decomposition of the amplitude envelope: characterizing rhythmic patterns within and across languages. *The Journal of the Acoustical Society of America*, 134(1), 628-639.

## Pushing the envelope: Evaluating speech rhythm with different envelope extraction techniques

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The amplitude of the speech signal varies over time, and the speech envelope is an attempt to characterise this variation in the form of an acoustic feature. Although commonly used in the speech sciences, e.g., to estimate the syllable rate via inter-peak intervals, the algorithms and parameters described for performing extraction of the speech envelope vary in the literature. The current paper evaluates several speech envelope extraction techniques by comparing combinations of features and signal events, or acoustic landmarks, with manually annotated vowel onsets in a naturalistic dataset. Joint speech tasks are also used to determine which acoustic landmarks are more closely coordinated than others when voices are aligned. Finally, the acoustic landmarks are tested in a speech rhythm classification task with support-vector machine learning. Results show that specific speech envelope extraction techniques more accurately characterise aspects of speech rhythm, but the degree of accuracy was affected by the form of speech under study, e.g., reading versus speaking spontaneously. Overall, the best performing landmark was peaks in the first derivative of a human audition-informed envelope, consistent with converging evidence from neural and behavioural data. These findings show that the choice of speech envelope extraction technique can have implications for how sensitive this method is at capturing characteristics of speech rhythm.

## Linguistic timescale deficits in children with dyslexia

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Quasi-rhythmicity is a common feature present both in human speech and neuronal oscillations. Several studies have suggested that phase- and amplitude-synchronisation between speech rhythms and neuronal oscillations as a possible mechanism for speech and language processing. In this talk, I will introduce the *spectral-amplitude modulation phase hierarchy* model (S-AMPH) and demonstrate the presence of modulation hierarchy in child directed speech. The model shows that various amplitude modulations (0.9-40Hz) correspond to various linguistic units, such as stress, syllable, and phoneme rate. Data from our recent MEG study of naturalistic listening with children with dyslexia (N=19, mean age: 9.66 years) and age matched controls (N=20, mean age: 8.81 years), showed that children with dyslexia have atypical entrainment to stress and syllable rates (canonical delta). This locus of deficits was identified by computing lagged speech-brain coherence. The gamma band differences were right-lateralised, in contrast to the left-lateralised differences reported previously for adults. Functional connectivity analyses showed network differences between groups in both hemispheres, primarily in the delta band (<5Hz), with dyslexic children showing significantly reduced global network efficiency. Network efficiency correlated with dyslexic children's oral language development. These developmental data suggest that dyslexia is characterised by atypical neural sampling of auditory information at slow rates. This is the first MEG study of English dyslexic children that explicitly measures neural sampling of multiple timescales for naturalistic stimuli. Finally, I will argue that rhythm perception is a key mechanism for language development and that this developmental perspective is essential to address the questions raised in this symposium.

# When language hits the beat: Synchronising movement to simple tonal and verbal stimuli

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Rhythmic perception-action coupling through sensorimotor synchronization has been studied with non-verbal, simple and complex auditory signals like a metronome and music. Applications of the paradigm to language are relatively rare, but could provide a valuable tool for investigating rhythm perception in speech. The aim of the present study is to compare sensorimotor synchronisation with simple non-verbal and verbal stimuli, and to discuss the question whether or not beat-like structures can be identified in linguistic stimuli.

Twenty-nine English-speaking participants tapped in synchrony with, and after listening to, a set of pure tones and simple syllables at three different tempi. Synchronisation to the vowel onset of verbal stimuli was comparable to the synchronisation to the acoustic onset of simple tones. Stability of inter-tap intervals decreased in the non-synchronised continuation condition at a slower tempo. These findings suggest that similar perceptual mechanisms are in place for auditory stimuli, regardless of their origin and complexity, and support the idea that processing and encoding of linguistic prosody relies on general aspects of the perceptual and motor system. The results of the sensorimotor synchronisation paradigm developed in the present study support the idea that language may be perceived as rhythmic.

# Pupillary entrainment to natural speech reveals rhythmic differences between languages

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Spoken languages are often classified as stress-timed or syllable-timed[1], despite the lack of isochrony even in the most prototypical syllable- or stress-timed languages[2]. While many studies have proposed acoustic measures of rhythm that account for durational variability, it remains unknown whether listeners can perceive linguistic units of varying length as rhythmic[3,4]. Here we therefore measured spontaneous pupillary synchronization to natural recordings of sentences from two syllable-timed languages (Italian and French) and two stress-timed languages (Dutch and Polish) while recording adult German-speaking participants pupil size. We calculated the Phase Locking Value (PLV) between the pupillary response and the envelope of the auditory stimuli in the syllabic (4-7Hz) and in the prosodic (1-4Hz) frequency bands. We found that the PLV values in the syllable frequencies to be significantly higher for sentences from syllable-timed languages than from stress-timed languages. In contrast, the PLV values in the prosodic frequency band were significantly higher for sentences from stress-timed languages. The pupillary response can therefore synchronize to the acoustic envelope of naturally spoken language, providing a spontaneous measure of sensorimotor synchronization between the speech signal and listeners' pupil size. Importantly, the cross-over interaction between synchronicity in syllable- and stress-timed languages also suggests that changes in pupil size entrain to speech and may provide a measure for speech rhythmicity under conditions of naturally occurring variability.

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# The brain synchronization to the quasi-rhythmicity of language

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Speech is quasi-rhythmic as it possesses a temporal structure that exhibits high regularity. Some of this regularity is observed in the modulations of the speech envelope. When analysing the modulation spectra of the speech envelope from various languages, we found that the AMi spectra (AM spectra computed in terms of modulation index) for these languages are similar in shape: the strongest modulation occurs between 2 and 10 Hz, with a peak around 5 Hz, which corresponds to the syllabic rate (Varnet et al., 2017). Additionally, we found that slight differences in the AMi spectra reflect linguistic properties such as word order and rhythmic class.

Such amplitude modulations of the speech signal are readily tracked by the auditory cortex (Ahissar et al., 2001) and this speech envelope tracking has been claimed to play a causal role in speech comprehension. However, we investigated the developmental origins of speech envelope tracking, and found that it already takes place at birth and is not modulated by prenatal experience, therefore, suggesting that it represents a basic auditory ability, occurring in the absence of attention and comprehension (Ortiz Barajas et al., 2021). These results are supported by our findings in cross-frequency coupling at birth, where we found that the phase of lower-frequency oscillations (1-2 Hz) modulates the amplitude of higher-frequency oscillations (3-20 Hz) in familiar and unfamiliar languages alike (Ortiz Barajas et al., submitted). These, together with our results for 6 months-olds, suggest that brain synchronization to the speech envelope modulations is universal at birth, and changes with development and speech experience.

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# Rhythmic production, rhythmic parsing, and limits of rhythm in language processing

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We review and synthesize experimental and corpus work concerning the role of rhythm in language processing. We conceive of rhythm as the more or less regular succession of abstract prosodic units that may or may not differ in terms of prominence. We focus on two partly conflicting rhythmic constraints, namely the Principle of Rhythmic Alternation (PRA, instantiated by two familiar constraints militating against stress clashes or stress lapses), and Prosodic Parallelism (ProPa, favoring structures with equal-sized prosodic constituents, cf. Wiese & Speyer 2015), and on their role in the processing of syntactic phrases.

In several studies we find immediate processing effects due to the PRA: Speakers and readers experience processing difficulties when faced with structures violating the PRA or avoid producing such deviant structures (Franz, 2021; Franz et al. 2021; Kentner 2012). The fact that comparable PRA effects are detectable in both spoken production and silent reading suggests that these rhythmic effects are not bound to speech motor execution or auditory processing. Effects of ProPa are less pronounced and mostly found in non-spontaneous language use (in phraseologisms or in the context of coining names, Kentner 2015). Kentner & Franz (2019) suggest that rhythmic effects on syntactic processing are limited to syntactic domains smaller than a clause.

In sum, rhythm in language is real, it is sufficiently abstract to affect spoken production and reading, and its scope is limited to local processing domains and constrained by processing demands.

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# Influences of (non-binary) rhythm on word order in German

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In this talk I am presenting the outcome of my dissertation ‚Influences of rhythm on word order in German', which subsumes three series of experiments on the workings of linguistic rhythm and its scope in processing. First, a picture-based elicitation study shows that rhythmic well-formedness influences the order of isolated conjuncts, as long as the items were kept constant in terms of animacy (Franz et al. 2021). Second, a binary forced choice questionnaire study with written stimuli shows that participants prefer the non-canonical word order only when the resulting sequence is rhythmical (trochaic and dactylic, Franz et al. 2020). Third, two picture-based sentence elicitation experiments show that participants prefer to place the (human, but not the non-human) German object pronoun promoting rhythmic well-formedness.

Based on the results, I introduce an algorithm for the calculation of rhythmic well-formedness which treats linguistic rhythm as a balanced distance of similarly prominent syllables in a sequence. Further, the results suggest that rhythmic influences on word order in German speech are notable but do not extend the planning scope of certain syntactic structures as well as semantic constraints (Franz et al. 2021, Kentner & Franz 2019). I am discussing the findings in the context of the model proposed by Calhoun (2010), offering an extension based on the presented results.

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# From acoustic to abstract to neural rhythms

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It has frequently been proposed that periodic electrophysiological activity—so-called neural oscillations—subserves auditory and linguistic processing. Oscillatory cycles are thought to provide processing time windows that fit various acoustic units (e.g., phonemes, syllables) and abstract linguistic units (e.g., syntactic phrases).

Most prior studies have studied how neural oscillations subserve the periodic extraction and formation of auditory and linguistic units from speech. The research presented here inverts this perspective, claiming that internal oscillatory time windows may also constrain linguistic processing—and language as such—from the inside out.

I present a series of electroencephalography experiments that focus on syntactic ambiguities. We found that electrophysiological cycles in the order of seconds constrain ambiguity resolution, such that the grouping of words into syntactic units depends on the phase of slow-frequency neural oscillations; in other words: When a cycle ends, listeners may terminate a chunk.

In the second part of the presentation, I will suggest that periodicity as an electrophysiological bottleneck may also be reflected in linguistic corpora and even in eye movements during reading: First, we found that speech prosody is periodic at a frequency that matches the frequency of those neural oscillations that relate to prosody processing. Second, we observed that eye movements during reading display periodic slowdowns that coincide with the endings of larger syntactic units.

I am making the simplistic claim that the duration of neural oscillatory cycles is an electrophysiological constraint that associates with the periodicity of both linguistic behavior and language as a cultural system.

# AG 15

## Literal and figurative meanings of compounds
### (short AG)

Natascha Elxnath, Stefan Engelberg

## *Tax havens* and *fiscal regimes*: Metaphorical domains in compounding and modification

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Recent work suggests a general structural constraint on metaphor across different constructions: It is the 'dependent' element (Sullivan, 2013), the predicate (Rapp, 2020), that is metaphorically shifted: e.g., *der Motor stottert* 'the engine stammers', *die Boulimie des Kommerzes*, 'the boulimia of commerce' (Rapp, 2020, p. 396). In these examples, the underlined part gives the source domain of the metaphorical mapping and the non-underlined part the target domain. However, it is not clear how this constraint applies to modification and compounding. We find both *politische Musikalität* 'political musicality' and *wurmstichigen Regieeinfälle* 'wormeaten director ideas' (Rapp, 2020, p. 397) and *Steuerparadies* 'tax haven' next to *Schattenkabinett* 'shadow cabinet'. I will show that we can make sense of this descriptively by recognizing that compounding happens semantically in two basic ways (Bisetto & Scalise, 2012; Jackendoff, 2010): N2 can be the argument of N1 (*tax haven*: a haven 'of' tax) or N1 can be the modifier of N2 (*shadow cabinet*: cabinet that is a shadow). In both cases it is then the predicate (*haven, shadow*) that is metaphorical, in line with our general constraint. Moreover, attributive AN structures show the same two patterns: typically the modifier is the predicate of the N (*shadowy cabinet*: cabinet that is shadowy; *wurmstichigen Regieeinfälle*: director ideas that are wormeaten), but not with domain adjectives: there the morphologically complex adjective involves reference to sth. (corresponding to the target domain) that can be the argument of the head (giving the source domain, as in e.g. *politische Musikalität*: musicality in politics).

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# Metonymic shifts help to combine the functions of morphological and syntactic constructions in German ICC

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Metonymy is one of the most fundamental processes of meaning extension and frequently occurs in compounds. In N+N compounds, the modifier, the head, or the compound as a whole can be shifted metonymically. A special kind of nominal compounding in German forms so-called identical constituent compounds (ICCs, Finkbeiner 2014; Hohenhaus 2004) which allow for two different readings:

(1)  Buchbuch
     *book book*
     'a book about a book' <u>or</u> 'an ordinary book, no ebook'

I argue that these two readings are related to the difference between literal and figurative meanings of the first constituent. The modifiers can refer to the literal meaning of the base noun or only the properties associated with the head concept (WHOLE FOR PART: 'a book with book-like properties'). Since the two constituents are identical, ICCs of the latter type necessarily have a metonymy-based relation between the two constituents. Using large-scale corpus data, I examine which factors influence the speaker's choice to use this morphological construction over the more common periphrastic alternatives (*an ordinary book*, *a book made of paper*) and how speakers indicate that the addressee must apply the metonymic shift. Moreover, I argue that speakers use the metonymic shift in ICCs because these constructions serve the need for a description of a noun referent while keeping the default classificatory function of compounding.

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## *Schnelltest* vs. *schneller Test*: A case study on the interpretation and usage of AN-compounds and AN-phrases

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In AN-compounds, it is underspecified how head noun and adjective are related (Bücking 2009). Thus, novel AN-compounds are ambiguous (see 1). Usually, this is not the case for AN-phrases, as the adjective can only refer directly to the head noun in these cases (see 2):

(1) *Grünbeutel*

    a. bag that is greena.

    b. bag that contains green things

    c. bag that is held together by green ribbons

(2) *grüner Beutel*

    bag that is green

There are, however, some adjectives that have special qualities that make phrases quite flexible, too. The adjective *schnell* ('quick'), for instance, can cause ambiguity as it allows for event coercion (Bücking & Maienborn 2019). As a result, *schnell*-phrases seem to have the same broad range of interpretations as their compound counterparts:

(3) *schnelles Getränk / Schnellgetränk*

    a. drink that can be quickly prepared

    b. drink that people consume quickly

    c. drink that quickly influences the body

Thus, it is unclear why speakers use two forms after all. Based on concept theories (e.g. Härtl 2016), I will show that phrases come with 'easy' readings, while compounds have enriched concept-readings (e.g. *Schnelltest*: a test that is quick and handy, but imprecise).

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## Enigmatic Compounds as Triggers of Attitudinal Meaning

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*Enigmatic compounds* (ECs), i.e., ad hoc compounds serving a stylistic function (Wildgen 1981), are found to often implicitly convey attitudinal meanings (AMs), as shown by (1)-(2):

(1)  **Merkel-Land** 'Merkel-land': Refugees avoid Austria and prefer Mer-
     kel-land because they can bring families there.
     **AM:** *German refugee crisis is Merkel's fault*.

(2)  **Kopftuch-Praktikantin** 'hijab-intern': Hijab-intern gets a new job
     **AM:** *The religious practices of Muslims are troublesome*.

We propose a pragmatic analysis on how such AMs arise: The use of coined ECs flouts the Gricean Maxim of Manner (Grice 1975), and gives rise to a pragmatic enrichment by the hearer (H) that the speaker (S) must intend to convey additional message. Ideally, H and S share beliefs that disclose the intended additional message. Minimally, H can guess possible beliefs of S, without sharing them automatically. We utilize the notion of *discourse commitment of S* ($DC_S$) by Farkas & Bruce (2010) to elucidate the complex epistemic background of ECs, and extend the notion of $DC_S$ by defining $DC*_S$ as the *truly intended DC of S*, which may diverge from $DC_S$ in that $DC*_S$ contains propositions that are not uttered but still intended by S to add to the common ground. Further, we define $DC^H_S$ as *H's inference of intended DC of S*. Thus, for *Refugees prefer Merkel-land*, we get the follows:

(3)  Let $p$ = 'Refugees prefer Germany', and $p'$ = 'German refugee crisis
     is Merkel's fault': $DC_S=\{p\}$, $DC*_S=\{p, p'\}$, $DC^H_S=\{p, p'\}$

We propose that H's correct capture of the AMs equals to the condition $DC^H_S = DC*_S$. This fine-grained division of $DC_S$, $DC*_S$ and $DC^H_S$ potentially can also be applied to analyze metaphoric compounding.

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# Metaphorical processes in compounds:
## A systematic cross-linguistic study

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While there is a growing interest in research on word-formation generally (e.g. Müller et al. 2015) and compounding specifically (e.g. Lieber and Štekauer 2009), research on recurrent metaphorical processes in the formation of compounds in the languages of the world has not grown to the same extent since the 1980s, when foundational studies such as Brown and Witkowski (1981) have appeared.

In this presentation, I report on metaphorical processes in compound formation in the languages of the world. This is based on new analyses of a large typological database of word-formation and semantic associations on the basis of a sample of 111 representative languages (Urban 2012).

A preliminary assessment suggests that metaphor is a prominent semantic relation in compounds in the languages of the world, but that the propensity with which languages rely on it depends more on the designated concept, and to some extent also on areal patterning, than on cognitive preferences for metaphor in individual languages.

For illustration, I will focus on metaphorical designations that are common across the world's languages as well as ones that are restricted to certain parts of the world in extended case studies.

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## Metaphors and the internal order of Sanskrit compounds

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When a metaphor is involved in Sanskrit compounds, the qualifier occupies the right-hand slot if the compound is endocentric ((1)), but the left-hand slot if the compound is a bahuvrīhi ((2)).

| (1) aśva-vr̥ṣa-ḥ. (BĀU 1.4.4.6) | (2) <u>vr̥ṣan-aśvá-ḥ</u> [ratha-ḥ].(R̥V 8.20.10) |
|---|---|
| horse-bull-NOM | bull-horse-NOM chariot-NOM |
| 'that bull of a horse.' | '[chariot] whose horses are bulls.' |

Analyses that take bahuvrīhis as the result of applying either a null unit (Gillon 2008:3) or the synecdoche (Bauer 2008:59) to an endocentric compound cannot readily account for the internal order of (1)-(2). We advance a fresh analysis of Sanskrit compounds, couched within the generative framework, to capture this internal order. The main ingredients of this analysis are the following. First, *aśva-* is a dependent of *vr̥ṣa-* in (1), as the proposed translation suggests (Mocci and Pontillo 2019). Second, a compound-specific rule requires the dependent to be allocated to the left-hand slot of the compound (cf. Eik 2019:183-185): this derives the order in (1). Third, *vr̥ṣan-* and *aśva-* are in a predicative relation in (2) (Lowe 2015:101), which by definition excludes a dependency of *aśva-* on *vr̥ṣan-* or vice versa. Fourth, the position of the compound members is determined by <u>independently motivated</u> syntactic constraints (notably, by the Subjacency Condition of Moro 1997:51-57) when no dependency between the compound members obtains: this will be seen to derive the internal order of (2). In conclusion, Sanskrit compounds involving metaphors are a fruitful domain to test the importance of the syntactic component in the formation of compounds.

**References:** • Bauer, L. (2008): Exocentric Compounds, *Morphology* 18, 51–74. • Eik, R. (2019): *The Morphosyntax of Compounding in Norwegian*. NTNU. • Gillon, B. (2008): Exocentric Compounds in Classical Sanskrit. inria00202860. • Lowe, J.J. (2015): The syntax of Sanskrit compounds. *Language* 91(3), 71–114. Mocci, D. and T. Pontillo (2019): Predication in Aṣṭādhyāyī 2.1.56. *Aevum* 93(1), 3–38. • Moro, A. (1997): *The raising of predicates*. CUP.

## Compounding in Wushi: the 'word vs. phrase' dichotomy and the role of context

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The complexity of the phenomenon of compounding is revealed in the array of definitions proposed to describe it. This complexity is particularly due to the various ways in which it operates in languages. Wushi is a Bantoid language belonging to the Grassfields group located in the western region of Cameroon. Most of these languages lack general descriptions, let alone descriptions of specific aspects like compounding. One major characteristic of Bantoid languages is the noun class system. This plays a crucial part in the formation of compounds. In Wushi, noun classes are predominantly marked by suffixes, which exhibit an unusual mobility especially in noun phrases. For example, the phrase *ŋgàːvʉ́-kə́ ŋgɔ̀ː mɛ̂* 'the seller of the banana' is made up of the noun *ŋgàːvɨ* 'seller' belonging to class 3 (zero affix), and the noun *ŋgɔ̀ːkə̀* 'banana' belonging to class 7 (suffix *-kə̀* ). *mɛ̂* is the determinant translated as 'the'. What happens here is that the suffix of the second noun moves to the first noun to indicate the formation of the phrase. On the other hand, the affix *-kə́* could also be interpreted as a linker, and this is the function it actually performs in derived (or compound?) nouns like *ŋgàːkə̀f* 'owner', *ndə́ kə̀ bvə́* 'womb', *fkə̀ tʃɔ̀ʔ* 'phone'. Moreover, the nouns *vɪ̄* 'woman, female' and *mbɔ̂* 'man, male', can be either prefixed or suffixed to a lexical stem, which will yield meanings pertaining to 'woman' in the first case, or 'female' in the second. And here again, syntax plays an important part. In this paper, I argue that in order to handle these forms, we need to adopt approaches such as the one suggested by the Distributed Morphology (Halle & Marantz 1993), which incorporates morphology into syntax.

**References:** Halle, M., Marantz, A. (1993): Distributed Morphology and the pieces of inflection. In K. Hale & S. J. Keyser (eds.), *The view from building 20,* The MIT Press, 111-176.

## *Bahuvrīhi* compounds in Old English:
## The role of figurative language

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*Bahuvrīhi* is the Sanskrit term for those compounds with no internal semantic head, like *redskin* or *hammerhead*. The *bahuvrīhi hammerhead* does not denote a type of head, but rather refers to somebody possessing or characterized by a head, which is similar to a hammer. They represent one particular type among the OE compounds and are so productive and structurally diversified, as to be considered as a poetic device (Čermák 1997). Nevertheless, they regularly occur also in OE prose. Characteristic is their "expressiveness", due to their ability to describe people, animals, plants and things through one physical or psychological peculiarity. After a morphological description of the subtypes of *bahuvrīhis* in OE, the attention is devoted to their semantics. Large part of them has a meaning which is not directly predictable from that of their components. Metaphors and metonymies have an impact on the meaning construction of these compounds in OE: 71% of them are figuratively built (Saracco 2020). Furthermore, five patterns of metaphorical/metonimical composite structures can be identified:

1. *Bahuvrīhi* compounds with a metonymy-based OR metaphor-based modifier;
2. *Bahuvrīhi* compounds with a metonymy-based AND metaphor-based modifier;
3. Double metonymy on the second component (usually the head);
4. The compound as a whole is metonymical;
5. The compound as a whole is metaphorical.

**References:** Čermák, J. (1997): A prow in foam: The Old English Bahuvrihi Compound as a poetic device. In *Prague Studies in English* (12), 13–31. • Saracco, C. (2020): I composti bahuvrīhi delle antiche lingue germaniche. *Analisi morfologica e semantica*. LINCOM.

# The figurative potential of adjective noun compounds

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Little is known about the figurative potential of AN combinations. For German, Schlücker (2014) found a clear formal distinction: metonymic combinations are realized as compounds, metaphoric ones as phrases (*Dummkopf* 'stupid-head' vs. *harte Droge* 'hard drug'). Thus, these two types of non-literal meaning are clearly differentiated formally and the semantic difference contributes to the boundary between syntax and morphology. But to what extent is this pattern idiosyncratic to German? And which kind of shifts and patterns give rise to the non-literal meanings?

*Method*: 164 non-literal German lexical AN combinations were formally (phrases vs. compounds) and semantically (metonymic ANs, ANs with only metaphorical A, and ANs with metaphorical N) classified. English lexicalized translation equivalents were selected and classified formally (spaced, unspaced, simplex) and semantically (same categories as for German). The German data shows a very clear pattern: all but four ANs with metonymic heads are realized by compounds, and all but four of the others are realized by lexical phrases. The English data is shown below:

| German type | literal | English translation equivalents of non-literal: | | | |
| --- | --- | --- | --- | --- | --- |
| | | unspaced | spaced | simplex | other |
| Metaphoric mod | 34.1% | 7.4% | 85.2% | 0% | 7.4% |
| Metaphoric head | 34.6% | 5.9% | 70.6% | 0% | 23.5% |
| Metonymic head | 45.6% | 80.0% | 20.0% | 0% | 0% |

*Discussion:* Both languages show the same overall preferences: metaphorical ANs are predominantly realized spaced. Among other things, the uniform behavior of the metonymic cases is driven by shifts of body parts, whereas the metaphoric cases show no such dominant pattern.

**References:** Schlücker, B. (2014). *Grammatik im Lexikon. Adjektiv-Nomen-Verbindungen im Deutschen und Niederländischen*. Berlin: de Gruyter.

# Metaphoric patterns and bound metaphors in nominal compounding

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The talk shows how the manifold non-figurative and metaphorical readings of compound nouns in German emerge on the basis of a highly underspecified compositional semantics that is enriched by several usage-based types of patterns. Several concepts play a role in this approach: (i) metaphor-inducing local binary structures (beside compounds also attributive genitives and adjective-noun combinations). (ii) conventionalized syntagmatic patterns of interpretation for compounds (e.g., whole-part interpretation as in *Tischplatte*, table-board, 'tabletop'), (iii) word-field-specific paradigmatic metaphorical patterns (e.g. the metaphorical transfer of position and form in body-part words, e.g. *Lampenfuß*, lamp-foot, 'lampstand', *Felsnase*, rock-nose, 'outcrop'), and (iv) bound metaphors that are restricted to specific morphosyntactic forms (*Lachs auf Spinatbett* 'salmon on spinach bed' / *Lachs auf Bett des Spinats* 'salmon on bed of spinach').

# Metaphoric interpretation of compounds versus genitive constructions

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The aim of this talk is to determine the factors for metaphoric interpretation inside German compounds and genitive constructions. I will defend the following hypotheses:

a)  If the semantic category combination of the two constituents maps onto a frequent interpretation pattern, then the compound / genitive construction will be interpreted literally.

b)  If the semantic category combination of the two constituents does not map onto a frequent interpretation pattern, metaphoric interpretations arise because the compound / genitive construction will be coerced into one of the prominent patterns.

c)  As compounds have other literal interpretation patterns than genitive constructions, different kind of metaphors arise with the two constructions.

d)  In both cases, metaphoric reinterpretations concern the head of the construction.

Besides new insights concerning metaphor theory I expect my results to be useful for the automatic extraction of metaphorical compounds and genitive constructions from corpora.

**References:** • Engelberg, S. & I. Rapp (2019): ‚Die Gräten einer Harfe'. Metaphorische Transformationen und ihre morphosyntaktische Grundlage. In: Winter-Froemel, E. (Hg.), *Sprach-Spiel-Kunst. Ein Dialog zwischen Wissenschaft und Praxis*. Berlin: De Gruyter, 31–44. • Rapp, I. (2020): „Ein Kinderwagen schreit – Uminterpretationen zwischen Semantik und Pragmatik". In: *Linguistische Berichte* 264, 383-415.

# Computational Linguistics poster session

Timm Lichte & Rainer Osswald

# A corpus annotated for metaphor in German

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We present work on a German corpus annotated for metaphor with material from different registers (Halliday and Hasan, 1985), like in the VU Amsterdam Metaphor Corpus (Steen et al., 2010): speeches of the Parlamentsreden-Korpus (Blaette 2017), newspaper commentaries (including the Potsdam Commentary Corpus, Stede 2004), sermons, light fiction, and debates from competitions of 'Jugend debattiert'. In text parsed by the Stanza package (Qi et al 2020) we annotate in the INCEpTION tool (Klie et al. 2018) the metaphors and the contexts that trigger their metaphorical interpretation, a strategy also pursued in Dipper et al. (2021). For the annotation, we developed extended guidelines on the basis of the 'Metaphor Identification Procedure-VU' (Steen et al., 2010; Herrmann et al., 2019).

Non-conventionalised and extended metaphors show up predominantly in highly persuasive registers. The expectation that oral and fictional discourse are low on metaphor (Steen et al. 2010) could only be confirmed for fiction. From the viewpoint of tenor (author-recipient relations), the closeness of the interlocutors correlates inversely with overall metaphoricity. Also, non-conventionalised and extended metaphors occur more frequently in registers with a hierarchical difference between authors and recipients. Sermons had the highest degree of non-conventional metaphors, with extended metaphor emerging as a clear register marker for sermons.

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# Good sentences, bad sentences

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During syntactic parsing many stumbling blocks can jeopardize the quality of the output. As others (e.g., Ortmann et al. 2019) have observed before, a key bottleneck in parsing is correct end-of-sentence recognition. In this paper, we present a set of measures to distinguish good sentences from bad sentences and show how filtering for good sentences improves accuracy in Universal Dependencies (UD) parses of historical German texts.

Our corpus (DTAW) features German scientific texts from the Deutsches Textarchiv (DTA, Geyken et al. 2018) between 1650 and 1899. To detect 'bad sentences' we use a similar approach as Didakowsky et al. (2012), who develop rules to extract good example sentences for a lexical resource. We look for sentences beginning with a word in lower case (in this case we mark also the preceding sentence as bad), sentences with fewer than 8 tokens, as well as sentences lacking a verb and all sentences in other languages than German. We retain approximately 74 million 'good' tokens out of initially 82 million tokens (rejection rate 9.42%).

We conduct three different types of evaluation: 1) General parsability 2) Number and accuracy of roots per sentence 3) Correctness of the assigned UD tag per token, correctness of the syntactic head of each token, and correctness of both labels (UD tag and head) per token. In all evaluations the parsing accuracy for good sentences improved significantly. Grammatical interpretablity is 100% for the good sentences and 71% for the bad ones. Evaluation of number of roots came out negative for the good sentences as on average a good sentence has 1.54 roots (1.48 for a bad one). Correctness of root labels results in a mean accuracy of 62% for good sentences and 40% for bad ones. Label accuracy is 92% for the good sentences (65% for the bad ones) and head correctness is 87% for the good sentences (65% for the bad ones). Our procedure can be useful for NLP applications such as syntactic parsing and other tasks where sentence splitting plays a role.

**References:** Didakowski, J. et al. 2012. Automatic example sentence extraction for a contemporary German dictionary. 15th EURALEX International Congress. • Geyken, A. et al. 2018. Das Deutsche Textarchiv als Forschungsplattform für historische Daten in CLARIN. In *Germanistische Sprachwissenschaft um 2020*, vol. 6. • Ortmann, K. et al. 2019. Evaluating Off-the-Shelf NLP Tools for German. In *KONVENS*.

# Reproducible complex corpus analyses with KorAP's R and Python libraries

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Corpus data are difficult to access for simple interpretation due to their high-dimensional and opaque structure. In addition, they usually offer only limited access, as they are rarely openly available for legal reasons. The corpus linguistics group at IDS Mannheim has been pursuing a multi-level model to still make corpus data accessible and usable for as many as possible as well as for sophisticated applications, despite these challenges. At present, this model for using the German Reference Corpus DeReKo with the help of the corpus analysis platform KorAP provides for the following levels (Kupietz et al. forthcoming):
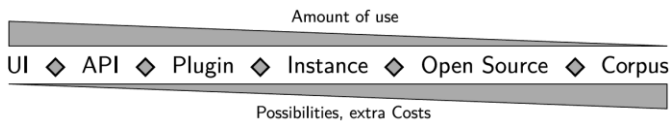


Through this (dynamic) model, as many different applications and analyses as possible should be manageable and technically supported without the need to copy and move data. The focus of this poster is on API-level access using KorAP's client libraries for R[1] and Python[2] (Kupietz et al. 2020). Basically all KorAP functions are accessible via the API, including authentication and authorization, which are also used by the KorAP web user interface (UI). Replication of complex or multi-part queries (with modified corpus sections, searches, or parameters, as well as on comparison corpora in other languages) and corresponding visualizations are an important application area for the API level. Another volatile application are experimental functions not yet fully supported by the backend, such as collocation analysis, aggregating representations, and cross-corpus analyses.

**References:** Kupietz, M., N. Diewald & E. Margaretha (forthcoming): Building paths to corpus data. *The CLARIN Book*, DeGruyter. • Kupietz, M., N. Diewald & E. Margaretha (2020): RKorAPClient. In: *Proc. of LREC 2020*, ELRA. pp. 7016–7021.

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[1] https://github.com/KorAP/RKorAPClient
[2] https://github.com/KorAP/PythonKorAPClient

# An information-theoretic account
# of constituent order in the German middle field

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The order of constituents in German is relatively free. However, certain word orders are preferred, such as (1a) with dative > accusative objects and (2a) with given > new, even though all orders are possible and do occur in natural data. Among the known influencing factors are animacy, familiarity, givenness, salience, length (e.g., Lenerz, 1977; Speyer, 2011).

(1) a.  Ich werde [einem Jungen]Dat [ein Buch]Acc geben.
    b.  Ich werde [ein Buch]Acc [einem Jungen]Dat geben.

(2) a.  Ich werde [dem Jungen]Dat [ein Buch]Acc geben.
    b.  Ich werde [einem Jungen]Acc [das Buch]Dat geben.

In our poster, we aim at explaining this phenomenon based on the cognitive processability of the constructions, which we measure by information density. Our corpus study is based on the SdeWaC (Faaß and Eckart, 2013). We select sentences from the corpus that contain a ditransitive verb with a dative (DA) and an accusative (OA) object in the middle field. We use the DORM score (Deviation Of the Rolling Mean; Cuskley et al., 2021) to quantify the uniformity of a sentence's information profile. Our investigations show that the marked orders are associated with particularly smooth information profiles, which we regard as a possible explanation for the deviations from the unmarked orders.

(3) Ein Kaiser und ein König werden sich vielleicht bücken, um [einem Maler]DAindef [den Pinsel]OAdef aufzuheben [...] (SdeWaC, sentence 209367)

**References:** Cuskley, C., Bailes, R., and Wallenberg, J. (2021): Noise resistance in communication: Quantifying uniformity and optimality. In: *Cognition* 214. • Faaß, G., Eckart, K. (2013): SdeWaC – a corpus of parsable sentences from the web. In: *Language Processing and Knowledge in the Web*. *Proceedings of GSCL*. • Lenerz, J. (1977): *Zur Abfolge nominaler Satzglieder im Deutschen*. Narr. • Speyer, A. (2011): Die Freiheit der Mittelfeldabfolge im Deutschen – ein modernes Phänomen. In: *Beiträge zur Geschichte der deutschen Sprache und Literatur* 133, 14–31.

# Degrees of similarities between Spanish and Portuguese varieties

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Spanish and Portuguese originated as Romance languages in the Middle Ages. During the discovery and colonisation of Latin America, these languages spread and various varieties developed. Nonetheless, similarities between these varieties have rarely been examined in a large-scale data-driven manner. In this study, we provide a computational approach to compare language variants of Spanish and Portuguese in Europe and Latin America based on corpus data modelling and evaluation metrics.

We hypothesise that these degrees of similarities differ, due to shared and separate morphosyntactic language features that developed differently over time and regions. The selection of the morphosyntactic features is partially motivated by theoretical linguistic observations, including a) conjugations of verbs, b) positions of clitics, and c) pronoun types. All morphosyntactic features are extracted as n-grams and their frequencies in corpora across language varieties. To quantify differences in distributions, we calculate cosine distance, Kullback-Leibler divergence (Bizzoni et al., 2020) and $\chi^2$ (Kilgarriff, 2001). In a more explorative series of analyses, we use z-score to rank n-grams of words and part-of-speech tags (Frassinelli et al., 2021). By evaluating the metric scores, we hope to confirm linguistic insights and in addition to empirically identify morphosyntactic features that may have been missed in previous observations. We use these metrics to determine not only how similar the varieties are in terms of certain features, but also whether any particular feature is more prominent in one variety than in the other. In a final step, we will use the metric scores to visualise the degrees of similarities between our two target languages and their varieties.

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# Projekt DeTox: Detektion von Toxizität und Aggressionen in Internet-Beiträgen und -Kommentaren

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Die Forschungsgruppe DeTox[1] ist eine Kooperation der Hochschule Darmstadt, des Fraunhofer Instituts für Sichere Informationstechnologie SIT und der Abteilung Cyber- und IT-Sicherheit des Hessen Cyber Competence Centers (H3C)[2]. Das Ziel ist die Entwicklung einer neuartigen und nachhaltigen Strategie für eine automatisierte Detektion von Toxizität und Aggressionen in Beiträgen und Kommentaren im Netz.

Mithilfe eines anonymisierten Datensatzes, den wir von der Meldestelle „Hass gegen Hetze"[3] des H3C zur Verfügung gestellt bekommen sowie einem eigens kreierten Twitter-Datensatz, arbeiten wir an State-of-the-Art Modellen zur Klassifikation von Hasskommentaren.

Dafür haben wir ein feingliedriges Annotationsschema und ein eigenes Annotationstool entwickelt, anhand derer die Kommentare in vielen verschiedenen Kategorien von Annotatoren bewertet werden. Dazu gehören unter anderem die Einstufung nach Hate Speech, strafrechtlicher Relevanz, Sentiment, Extremismus, Gefahr und Toxizität.

Mit diesen Daten trainieren wir verschiedene ML-Modelle um eine möglichst breite und akkurate Einstufung neuer Kommentare zu erzielen. Ziel ist es, Hilfestellungen für die Mitarbeiter des H3C zu entwickeln.

Zu unseren Tätigkeiten zählt auch die Teilnahme an Shared Tasks und Konferenzen wie zum Beispiel der GermEval 2021 Subtask zur Toxic Comment Classification (Schütz et al 2021).

**References:** Schütz, M., Demus, C., Pitz, J., Probol, N., Siegel, M., & Labudde, D. (2021). DeTox at GermEval 2021: Toxic Comment Classification. *Proceedings of the GermEval 2021 Shared Task on the Identification of Toxic, Engaging, and Fact-Claiming Comments*, 54–61. https://aclanthology.org/2021.germeval-1.8

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[1] https://projects.fzai.h-da.de/detox/, zuletzt aufgerufen am 10.12.2021

[2] https://innen.hessen.de/Sicherheit/Cyber-und-IT-Sicherheit/Cybersicherheit, zuletzt aufgerufen am 10.12.2021

[3] https://projects.fzai.h-da.de/detox/, zuletzt aufgerufen am 10.12.2021

# Semantic role labeling for neural machine translation

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Neural machine translation (NMT) systems are usually trained with parallel corpora of plain text, and the systems discover all information required for translation by themselves. In contrast, the idea pursued here is to annotate the source language side of a parallel training corpus with semantic roles, thus providing explicit semantic information to the NMT system. The hope is that this may lead to improvements in translation quality as a specialized system for semantic role labeling might do better in taking semantics into account in comparison to what NMT is doing implicitly.

We use the state-of-the-art neural system for semantic role labeling (SRL) provided by the Allen Institute for Artificial Intelligence to annotate the English (en) parts of the French (fr), German (de), Greek (el), and Spanish (es) sections of the Europarl corpus. To give an example, the sentence "John gives the flowers to Mary" is annotated as "[ARG0: John] [V: gives] [ARG1: the flowers] [ARG2: to Mary]". Subsequently, four NMT systems based on the Marian NMT toolkit and using Google's transformer architecture (for details see Rapp, 2021) were trained using the semantically annotated English Europarl portions on the source language side and the unannotated German, Greek, French, and Spanish translations on the target language side. We evaluated the translation quality by applying the BLEU metric on a test set of 2000 randomly held out sentence pairs and obtained the following BLEU scores: en→de: 31.6; en→el: 37.0; en→es: 43.9; en→fr: 39.0.

To have a baseline for comparison, beforehand we had trained systems for the same language pairs using unannotated portions of the Europarl corpus not only on the target but also on the source language side. This led to the following BLEU scores: en→de: 30.2; en→el: 36.5; en→es: 43.3; en→fr: 38.8. Although the improvements are only small, for all four language pairs the evaluation scores when training with SRL-annotated source language text were better than when using unannotated text.

**References:** Rapp, Reinhard (2021). Similar language translation for Catalan, Portuguese and Spanish using Marian NMT. *Proceedings of the 6th Conference on Machine Translation*.

# Identifying keywords and phrases in German COVID-19 Twitter discourse

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The COVID-19 pandemic has upended life around the globe, leading to intense public debate and a flurry of lexical innovation across many languages. (Socio-)Linguists quickly started to document and analyze COVID-19 discourse (Baines et al. 2021; Saraff et al. 2021), but there is as yet no systematic analysis of the lexical items and discourse patterns that characterize German COVID-19 discourse. We address this research gap through a systematic comparative analysis of public discourse during the COVID-19 pandemic. We identify not just distinct keywords and phrases linked to the pandemic but also track their development over time.

The starting point of the analysis is a contrastive keyword analysis of the discourse of every month of 2019 with its equivalent in 2020 and 2021, comparing pandemic with pre-pandemic discourse, while filtering out seasonal effects (e.g. discussion of *snow* in January). Our data comprises over 10 million geotagged tweets from Germany from over 160,000 unique Twitter users, producing a corpus of approximately 250 million words. Rather than collecting tweets based on a pre-existing list of keywords, we use a data-driven approach to identify COVID-19 related n-grams ($1 \leq n \leq 4$). We then assign these keywords to semantic fields such as COVID-19 NAMES (e.g. *Coronalage*), PUBLIC HEALTH INSTRUCTIONS (e.g. *Ausgangsbeschränkungen*), and VACCINATION and examine their development over time using statistical measures such as median and skewness of the distribution.

This analysis yielded over 800 1-grams, 500 2-grams, 130 3-grams, and 80 4-grams related to the COVID-19 pandemic. Results indicate that the lexis of COVID-19 discourse in German tweets significantly varies not only over time, but also within semantic fields of discourse and across regions.

**References:** Saraff, S.; Singh, T.; Biswal, R. (2021): Coronavirus Disease 2019: Exploring Media Portrayals of Public Sentiment on Funerals Using Linguistic Dimensions. *Frontiers in Psychology* 12:626638. • Baines, A.; Ittefaq, M.; Abwao, M. (2021): #Scamdemic, #Plandemic, or #Scaredemic: What Parler Social Media Platform Tells Us About COVID-19 Vaccine. *Vaccines* 9(421), 1–16.

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